

INTERNET DOCUMENT INFORMATION FORM

A . Report Title: OZ Revisited: Russian Doctrinal Reform in Light of Their Analysis of Desert Storm

B. DATE Report Downloaded From the Internet 3/9/99

C. Report's Point of Contact: (Name, Organization, Address, Office Symbol, & Ph #): School of Advanced Airpower Studies
Air University
(334) 953-5836
Maxwell AFB, AL 36112

D. Currently Applicable Classification Level: Unclassified

E. Distribution Statement A: Approved for Public Release

F. The foregoing information was compiled and provided by:
DTIC-OCA, Initials: VM_ **Preparation Date:** 3/9/99_

The foregoing information should exactly correspond to the Title, Report Number, and the Date on the accompanying report document. If there are mismatches, or other questions, contact the above OCA Representative for resolution.

1999031006661
C90
OZ REVISITED: RUSSIAN MILITARY DOCTRINAL REFORM
IN LIGHT OF THEIR ANALYSIS OF DESERT STORM

BY

EDWARD J. FELKER

A THESIS PRESENTED TO THE FACULTY OF
THE SCHOOL OF ADVANCED AIRPOWER STUDIES
FOR COMPLETION OF GRADUATION REQUIREMENTS

SCHOOL OF ADVANCED AIRPOWER STUDIES

AIR UNIVERSITY

MAXWELL AIR FORCE BASE, ALABAMA

JUNE 1994

DISTRIBUTION STATEMENT A
Approved for Public Release
Distribution Unlimited

Disclaimer

This publication was produced in the Department of Defense school environment in the interest of academic freedom and the advancement of national defense-related concepts. The views expressed in this publication are those of the author and do not reflect the official policy or position of the Department of Defense or the United States government.

This publication has been reviewed by security and policy and review authorities and is cleared for public release.

About the Author

Lt. Col. Edward J. Felker (BS, University of Maine; MA, Ball State University; MMAS, U.S. Army Command and General Staff College) is a logistian. He graduated Officer Training School as an honor graduate, and was commissioned a second lieutenant in the Air Force in November 1977. He recently graduated the Air Force's prestigious School of Advanced Airpower studies at Maxwell Air Force Base, Alabama. His last field assignment before attending school was as a squadron commander for one of Air Combat Command's largest maintenance squadrons at Castle Air Force Base, California. Lt. Col. Felker is a graduate of the U.S. Army's Command and General Staff College at Ft. Leavenworth, Kansas; the U. S. Marine Corps Command and Staff College, Quantico, Virginia; and the U.S. Air Force's Air Command and Staff College at Maxwell AFB Alabama. Previous assignments included munitions branch and squadron assistant maintenance supervisors, Griffiss AFB, New York and Eskisehir, Turkey; branch chief of NATO Nuclear Plans and Programs, HQ USAFE, Ramstein AB, Germany; Red logistics analyst and Chief, Allied Logistics Assessment for CHECKMATE, HQ USAF, the Pentagon; and Chief of Maintenance, Castle AFB California.

Abstract

Much occurred to influence Russian military doctrine from the Gulf War's end to the Russians issuing their draft doctrine in May 1992. The Gulf War was a "significant military experience" for the Russians because it highlighted what their General Staff thought was wrong with the military doctrine they inherited from the former Soviet Union. The Gulf War affected their perception of future war, and how they should posture their forces for it. This thesis explores the evolution of Russian military doctrine in light of the lessons they say they learned from the Gulf War. Since the early 1980s, such prominent military thinkers as Marshal Ogarkov argued that emerging technologies were generating a new revolution in military affairs. The Russian military doctrinal response to Desert Storm seems to confirm Marshal Ogarkov's predictions. The thesis finds the new military doctrine (1) reverts from the defensive to an offensive preemption, (2) reverts from no nuclear first use to nuclear escalation, (3) guarantees ethnic Russians living in former Soviet states protection, (4) emphasizes the importance of military advancement in C⁴I, smart weapons, and mobility, and (5) emphasizes strategic non-nuclear deterrent forces. Having detailed the Russian's preoccupation with an outward look, it concludes the General Staff neglected to look inward at the contribution the former Soviet military made to the collapse of the Soviet Union and the Warsaw Pact. In forming their military doctrine, like the intrepid travelers to Oz, they seem to pay no attention to the "man behind the curtain." The thesis concludes the Russian Federation's draft military doctrine, in essence, lacks reality and creates a danger of Russian military policy moving divergently from political influence.

CONTENTS

Disclaimer	ii
About the Author	iii
Abstract	iv
Chapter 1 Introduction	1
Chapter 2 Russian View of Military Doctrine	12
Chpater 3 Russian Impression of the Gulf War	30
Chapter 4 Emerging russian Post-Gulf War Military Doctrine	49
Chapter 5 Implications for US Strategists	58
Bibliography	66

List of Figures

1. Soviet/Russian Military Doctrine Fomulation	50
--	----

CHAPTER 1 *Introduction*

"You promised to send me back to Kansas," said Dorothy. "You promised to give me brains," said the Scarecrow. "And you promised to give me a heart," said the Tin Woodsman. "And me, courage," said the cowardly Lion. ... The Lion thought it would be well to frighten the Wizard, so he gave a large, loud roar, which was so fierce and dreadful that Toto jumped away in alarm and tipped over the screen that stood in the corner. As it fell with a crash they looked that way, and the next moment filled them with wonder. For they saw, standing in just the spot the screen had hidden, a little old man, with a bald head and wrinkled face, who seemed to be as much surprised as they were.

"Pay no attention to that man behind the screen. I am Oz, the Great and Terrible! I am – I – I," cried the old man. Our friends looked at him in surprise and dismay. "This is Terrible! You're not the Great Wizard," said the Scarecrow, in a grieved voice; "you're a humbug!"

— Frank L. Baum
The Wizard of Oz

In many ways, the Russian military is facing the same problem with their new military doctrine as the intrepid travelers to the Emerald City of Oz upon their encounter with the "Great and Terrible Oz." The new doctrine forms a template for Russian Armed Forces structure relative to their perception of the nature of future war. The political and economic reality of Russia's internal turmoil stands as an impediment to implementing the new doctrine. More so, the doctrine itself may be an indicator that the Russian General Staff repudiates the previous Soviet military's contribution to the collapse of the former Soviet Union's economy and social structure. As the travelers to Oz, the Russians' new military doctrine may be an exhortation to avoid the reality of the "man behind the screen."

This study explores the evolution of the new Russian military doctrine. It examines one factor that led to change, first within the Soviet doctrine, and then to the new Russian variant of the old Soviet doctrine. The study reviews some of the "lessons" the Russians say they learned from analyzing the results of the Gulf War, and relates them to provisions within the new doctrine. Finally, this paper attempts to predict the course the Russian military will take over the coming decade, and apply those predictions to some implications for U.S. strategists.

In exploring the evolutionary military doctrine of the former Soviet Union from their point of view, one might try to encompass as great a scope as possible. This is especially true when using a

definition of military doctrine as encompassing as Fritz Ermath's — that is "a set of operative beliefs and principles that in a significant way guide official behavior with respect to military research and development, weapons' selection, deployment of forces, operational plans, arms control, etc."¹ Treating this topic in such a way is obviously beyond the capability of this study. Additionally, the Russians discussed many Gulf War lessons not explored by this paper (coalition warfare, combined arms, deception, etc.). The thesis of this work focuses on their perceptions of airpower in the Gulf War. It was necessary to explore this perception because it had lasting and enduring impact on the military doctrine the Russians created two years after the Gulf War ended. Therefore, this paper centers on the most important aspect of Soviet/Russian military doctrine affected by their perceptions of airpower in the Gulf War — the question of the nature of a future war.

Often, advances in technology have caused revolutions in military affairs and structure as the nature of future war transformed. In the early decades of the Twentieth Century, fielding tanks, motor transport, mobile communications, and airpower transformed the battlefield. In the mid-Twentieth Century, nuclear weapons and missiles altered the strategy of the battlefield. Today, we see high-tech conventional alternatives replace battlefield nuclear weapons. These new weapons not only reduce the likelihood of escalation, but are as deadly to enemy groupings as nuclear weapons while creating little or no collateral damage.² These were precisely the changes to the future battlefield that the Russians evaluated as they analyzed the performance of the Allied Coalition in the 1991 Gulf War. Additionally, the collapse of the Soviet Union, the waning of the Cold War, and the end of the confrontation between two social systems (communism and capitalism) created a new political-military situation. This paper attempts to tie together Russian ideas about military doctrine reform and force structure based on their altered view of the nature of future war.

To the Russians, military doctrine is neither a general theory nor the view of individuals. It is a system of official state views. It encompasses the leading, fundamental, officially approved principles of military theory and practice that become mandatory for national organizations and military forces. In its

¹Fritz Ermath, "Contrasts in American and Soviet Strategic Thought," in *Soviet Military Thinking*, ed. Derek Leebaert, (London: Allen and Unwin, 1981), 86.

²Charles Dick, "Russian Views on Future Wars," *Jane's Intelligence Review* (September 1993): 390.

simplest form, military doctrine carries the politically approved sanction of law for military structure and function. This doctrine then represents the basis for national defense and development of the armed forces. It encompasses a wide range of issues from basic military policy to the actual armed forces' organization. The doctrine selects the most expedient views corresponding to the country's political goals and economic potentials, and codifies them in legislative acts, government decrees and resolutions, military regulations, manuals, and basic military orders.³

Benjamin Lambeth, a RAND analyst, defines the Soviet (and Russian) view of military doctrine as

... the sum total of scientifically based views accepted by the country and its armed forces on the nature of contemporary wars that might be unleashed by the imperialists against the USSR, and the goals and missions of the armed forces in such a war, on the methods of waging it, and also on the demands which flow from such views for the preparation of the country and the armed forces.⁴

Charles Dick examines the dual social-political and military-technical aspects of Soviet military doctrine. He states that the political and military leadership decides the basic tenets of military doctrine by responding to the "...socio-political order, the level of economic, scientific, and technological development of the armed forces' combat material, with due regard to the conclusions of military science and the views of the possible enemy."⁵ It represents the armed forces' view and conduct of modern war. The military-technical aspect of the doctrine describes those factors we most identify with military force structuring and posturing. It is a dynamic idea, constantly adjusted to reflect changes in new political requirements, economic factors, scientific achievement, preparation of the armed forces, and changes introduced by potential enemies. Timothy Thomas offers six considerations that the military-technical dimension of military doctrine embraces: (1) The character (nature) of the military threat; (2) The type and struggle that may result (future war); (3) The requirements for defense (historical paradigm about how war begins, its initial period, timing, and interaction of technology); (4) The armed forces required (strategic posture, mobilization, and deployment); (5) The means to conduct armed struggle and the use of the armed forces (force

³M. A. Gareev, "On Military Doctrine and Military Reform in Russia," *Journal of Soviet Military Studies* (December 1992): 540.

⁴Benjamin Lambeth, *How to Think About Soviet Military Doctrine*, (Santa Monica, CA: RAND Corp., 1978), 4.

⁵Charles J. Dick, "Initial Thoughts on Russia's Draft Military Doctrine," *Journal of Soviet Military Studies* (December 1992): 552.

generation, manning, and equipping); and (6) Preparation of the armed forces to accomplish these tasks (training, etc.).⁶

The Gulf War had an immediate effect on how the Russians perceived these six dimensions in relation to performance. As the Russians evaluated the outcome of the Gulf War, they noted their military doctrine was inadequate in light of their assessment of how to fight a future war. The Gulf War was a "significant military experience" for them. Much occurred to influence Russian military doctrine from the end of the Gulf War to the issuance of their draft doctrine in May 92.

The Russians concluded that the nature of modern war had changed radically from their earlier concepts. Airpower became the decisive force permitting the attainment of victory, while keeping losses to a minimum. The concept of redundant, overlapping, and integrated air defense was seriously flawed. Quality beat quantity. Top-down centralization with flexible execution remained critical to effective combat operations. Stealth was the wave of the future. Warfare had undergone a technical revolution. The end of the Cold War rendered Gorbachev's "defensive doctrine" obsolete.⁷

Previous Soviet military doctrine stressed the inevitability of a clash with NATO, and the importance of the initial period of war. Under their old doctrine, this period marked the time that mobilization, concentration and deployment of forces, and the conversion of national economies from a peacetime to wartime footing took place. Until these events occurred, relatively limited engagements took place. The primary tasks of the military were to cover the deployment of the main forces and disrupt the mobilization efforts of the enemy. Clausewitz, an important influence on Soviet doctrine, noted "the side that is ready first and sees a significant advantage in a surprise attack, will for *that* reason take the offense."⁸ For fifty years, Soviet doctrine stressed the offense. The Soviets believed that they could "beat" the West in a mobilization race and; therefore, could mass the means of warfare to achieve the aims of the initial period of war. They believed the outcome of the initial period was important in determining the subsequent course

⁶Timothy L Thomas, "The Soviet Military on 'Desert Storm': Redefining Doctrine?," *Journal of Soviet Military Studies* (December 1991): 595.

⁷Benjamin Lambeth, "Desert Storm and Its Meaning: The Viewpoint from Moscow," (Santa Monica, CA: RAND Corporation, 1992): 69-88.

⁸Carl Von Clausewitz, *On War*, edited and translated by Michael Howard and Peter Paret, (Princeton, NJ: Princeton University Press, 1984): 371.

of the war. For this reason their European strategy stressed neutralizing NATO's nuclear capability to force a decision in the initial period. The more the degree of surprise they could achieve, the greater NATO's need for space and time to recover the strategic situation in their favor. The Soviet perception of NATO's "depth," therefore became very important to their calculations of whether or not NATO had sufficient time and space to recover. The Soviets thus believed that the initial period of a war defined its course and outcome.

With the Gulf War, the Russians reinforced this view of the initial period of war. But the events in the Gulf put a new twist on the Russians' view of surprise and the importance of the initial period. Like Bernard Brodie, the Soviets saw that the Gulf War demonstrated "a situation for the first time in history where the opening event by which a great nation enters a war — an event which must reflect the preparations it has made or failed to make beforehand — can decide irretrievably whether it will continue to exist."⁹ Rather than shaping factors for later operations, the Russians saw that the initial period during the Gulf War decided the strategic outcome — the initial period had become *the only period*. Surprise, mass, the great destructiveness of improved conventional weapons, and initiative took a new meaning to the Russians. They saw these factors could have the same strategic effects as nuclear weapons; but, at less cost.

Mary FitzGerald argues the Soviets viewed Desert Storm as the "paradigm of future war in strategy, operational art, and tactics."¹⁰ The new doctrine assigns priority to wars fought with existing and emerging technologies. It calls for sustaining research and development at the expense of procurement as the defense budget declines. The doctrine reflects a changing view on nuclear war, inferring that a limited nuclear war is possible and conventional strikes on Russia's nuclear capability will elicit a nuclear response.

In tracing the evolution of Soviet/Russian military doctrine, this study will show how the Soviet leadership created a vast military force to achieve its political aims as a substitute for war. Today, under the new military doctrine, the Russians are reducing the size of this force in response to economic collapse.

⁹Bernard Brodie, *Strategy in the Missile Age*, (Princeton, NJ: Princeton University Press, 1991): 7.

¹⁰Mary C. FitzGerald, "Russia's New Military Doctrine," *Defense and International Security* (October, 1992): 42-43.

Instead of calling for serial production of weaponry, Russian leadership focuses on an infrastructure than endures development and rapid surge and mobilization. Military potential becomes the substitute for war. This study also shows how the Russian's view of the Gulf War contributed to this changing outlook. The following chapters will demonstrate how the new Russian doctrine reflects the pervasive impact of the Gulf War on Russian military thought. The question becomes how the Russians will follow the Yellow Brick Road in developing a military doctrine given their economic and political realities.

CHAPTER 2 Russian View of Military Doctrine

"The Emerald City was built a great many years ago, for I was a young man when the balloon brought me here, and I am a very old man now. But my people have worn green glasses on their eyes so long that most of them think it really is an Emerald City ... but the wicked Witches of the East and West were terribly wicked, and had they not thought I was more powerful than they themselves, they would surely have destroyed me."

"The Silver Shoes," said the Good Witch, "have wonderful powers... All you have to do is to knock the heels together three times and command the shoes to carry you wherever you wish to go."

— Frank L. Baum
The Wizard of Oz

To understand the impact that a Russian analysis of the Gulf War had on their military doctrine, it is necessary to outline the evolution of their military doctrine. This chapter defines the factors shaping Russian military doctrine from the end of World War II, to the eve of the Gulf War. Throughout the almost fifty years of its evolution, the doctrinal "green glasses" of offensive operations based on surprise, shock, and massed firepower are obvious.

The Voroshilov Lectures define military doctrine as a system of theories accepted by the state and the armed forces regarding the characteristics, form, and conduct of war.¹¹ They characterize military doctrine as the body of thought that prepares a nation and its armed forces for war. Political leadership develops the theories according to domestic and foreign policy, ideology, and military-scientific achievements. Thus, military doctrine reflects the economic, political, military, and historic character of the peo-

¹¹Doctrine (*voennaia doctrina*), as defined by the Soviets has two important framing aspects: socio-political and military-technical. The socio-political was expressed through the military policy of the Communist Party, based on a classic Marxist-Leninist view of the world. Its ideas about the political essence of modern war stemmed from the nature of the Soviet state and social system, and from historical principles of military organization development. It took account of the international correlation of forces and a scientifically based thesis on the psychological and moral-political of the people. It viewed the maintenance of the people's high moral-political base as essential. After the decline of Communism and the breakup of the Soviet Union, the *Geopolitics* replaced the old ideology.

The military-technical aspect determines the character of the military threat and the type of armed struggle to be fought. It served as the basis for determining defense requirements and what the armed forces needed. It established the means to conduct armed struggle and prepared the armed forces to accomplish their missions and tasks. See Thomas, Timothy L., "The Soviet Military on 'Desert Storm': Redefining Doctrine?", *Journal of Soviet Military Studies* (December 1991): 594-620 for a detailed explanation, see Soviet Studies Research Centre, *The Sustainability of the Soviet Army in Battle*, (Sandhurst, UK: Royal Military Academy, 1986), 4-32 for detailed explanation of the shape of future war.

ple and its international commitments.¹² Benjamin Lambeth, a RAND analyst, defines this Soviet view of military doctrine as

... the sum total of scientifically based views accepted by the country and its armed forces on the nature of contemporary wars that might be unleashed by the imperialists against the USSR, and the goals and missions of the armed forces in such a war, on the methods of waging it, and also on the demands which flow from such views for the preparation of the country and the armed forces.¹³

Charles Dick notes the dual social-political and military-technical aspects of Soviet military doctrine. Political and military leadership decides the basic tenets of military doctrine by responding to the "...socio-political order, the level of economic, scientific, and technological development of the armed forces' combat material, with due regard to the conclusions of military science and the views of the possible enemy."¹⁴ The political aspect is dominant and directive, but must consider military-technical realities in forming doctrine. Military doctrine then forms the bedrock on which all force structure and military plans rest. The General Staff uses the social-political aspect of doctrine to develop their military strategy and combined-arms operational art. Strategy dealt with the preparation, timing, and execution of strategic operations by groups of *fronts*¹⁵ in separate or adjacent theaters of strategic military actions (TVD).¹⁶ Operational art concerned actions of *fronts*, and other operational groupings. Its focus was the general campaign waged in a TVD. Tactics applied to the actions and battles of the *fronts*' tactical components.

¹²Ghulam D. Wardak, *The Voroshilov Lectures: Material from the Soviet General Staff Academy*, Vol. I, ed. Graham H. Turbiville, Jr., (Washington, DC.: National Defense University Press, 1989), 385.

¹³Benjamin Lambeth, *How to Think About Soviet Military Doctrine*, (Santa Monica, CA: RAND Corp., 1978), 4.

¹⁴Charles J. Dick, "Initial Thoughts on Russia's Draft Military Doctrine," *Journal of Soviet Military Studies* (December 1992): 552.

¹⁵In the Soviet context, *front* describes an organization of tactical units into an operational level force structure. For the conduct of combat operations, *fronts* are created from the Ground Forces, comprised of combined arms armies, tank armies, and *front* air armies. *Fronts* and groups of *fronts* are used in strategic operation. The groupings are categorized based on its strategic objectives. *Front* in the Soviet lexicon is not a geographical description, but one describing force structure, organization, and strategic mission. See Wardak, *The Voroshilov Lectures*, 357-368.

¹⁶TVD is a Russian acronym for *Teatr voenых действий*. The English version of this term is Theater of Military Action or TSMA. See Wardak, *The Voroshilov Lectures*, p. 382 for a full explanation of the meaning of the term..

Relationship Between Military Doctrine and Strategy

Political aims of the government, level of weapons development, and the specific missions assigned to the armed forces shaped military strategy. Military strategy decided the nature and role of the armed forces in future war. It resolved the form, type, organization, and theoretical principles to plan the strategic actions of the armed forces. It provided the analytical foundation for studying strategic theory, the characteristics of war, and capability to wage war against potential enemies.¹⁷ Military strategy provided the theoretical framework uniting domestic politics, economics, history, morale, science, international politics, and military forces.

Soviet strategy provided the unity between military doctrine, and operational art — its ultimate application. Political leadership and the Soviet High Command were linked through military strategy in preparing the nation for war. Taking the political leadership's instructions and the military doctrine, the Soviet High Command organized the strategic idea, planned how to deploy the armed forces, conducted and prepared the armed forces for war, and controlled them during war. The political basis of military strategy directly influenced the military-technical fundamentals of military doctrine. This circular relationship between military strategy and doctrine shows that any change in the theoretical base of one drove change in the other. How military doctrine viewed the characteristics of future war guided military strategy. Simultaneously, strategy affected the formulation and perfection of doctrine's military-technical component

The military-technical aspect of the doctrine was a dynamic idea, constantly adjusted to reflect changes in force posture, new political requirements, economic factors, scientific achievement, preparation of the armed forces, and changes introduced by potential enemies. Timothy Thomas noted six considerations that the military-technical dimension of military doctrine embraced: (1) The character (nature) of the military threat; (2) The type and struggle that may result (future war); (3) The requirements for defense (historical paradigm about how war begins, its initial period, timing, and interaction of technology); (4) The armed forces required (strategic posture, mobilization, and deployment); (5) The

¹⁷Wardak, *The Voroshilov Lectures*, 55-59.

means to conduct armed struggle and the use of the armed forces (force generation, manning, and equipping); and (6) Preparation of the armed forces to accomplish these tasks (training, etc.).¹⁸

Military Doctrine—Military Art—Operational Art—Tactics

According to Soviet military thought, military doctrine guided the development of military art; but, military art was not a subset of it. Doctrine consisted of general principles regarding the nature of war. Military art concerned the practical issues of warfighting and operational success.¹⁹ It formed the Soviet lexicon of military science, theory, forecasts, plans, and conduct of military operations. Given the view of the future battlefield formed by military doctrine, military art described the nature of present and near-future warfare in general terms. It articulated the likely enemy, types of military action to expect and for which to prepare, and the measures to equip and train their forces. Further, it provided the synthesis of the national economy and population in supporting future war. Military art, and its doctrinal underpinnings in applying military forces were closely coordinated. In the initial period of war, this coordination was critical.²⁰ According to Army General M. A. Gareyev, the response at the initial period of war most directly reflected the Soviet's political intent. He observed, "While politics usually prevails throughout a war, the political aspects are most prevalent on the eve or at the beginning of a war."²¹

Operational art dealt with conducting joint and combined operations of *fronts*, armies, and corps with the other branches of the Soviet Armed Forces. These forces pursued objectives at a strategic-operational level. Tactics referred to the actual battles in which the armed forces engaged. They normally consisted of division sized forces. Tactics spoke in terms of attacks, counterattacks, and fire plans by aircraft, missiles, artillery, and sometimes mechanized forces.²²

¹⁸Thomas, "Soviet Military on 'Desert Storm': 595.

¹⁹John G. Hines and Donald Mahoney, *Defense and Counteroffensive Under the New Soviet Military Doctrine*, (Santa Monica, CA: RAND Corp., 1991): 13.

²⁰The "initial period of war" is defined as the period when operations are carried out by those forces deployed before the outbreak of war to achieve the initial strategic objectives or to create favorable conditions for the committal of the main forces which are mobilizing and deploying during it. In modern times, this initial period is defined as decisive, and will determine the course and outcome of war. Military Encyclopedic Dictionary, 1986, p. 481 as described in C. J. Dick, "Initial Thoughts": 555.

²¹M. V. Gareyev, *Frunze — Military Theorist*, Moscow, 1985, p. 242 in Hines and Mahoney, *Defense and Counteroffensive*, 13.

²²Wardak, *The Voroshilov Lectures*, 381.

Soviet/Russian Military Doctrine Evolution

Soviet military doctrine changed because of changes in the same complex interrelationships that formed it — international political and military environments, foreign military doctrines, history, technology, ideology, and internal political, social moral, and economic constraints. Perceived strategic imbalance has been the prime motivator in the Soviet's doctrinal evolution. Michael McC Gwire notes:

Soviet military doctrine has evolved in response to what have been seen as a series of direct threats to the state's existence ... Nuclear testing aside, Soviet actions and the doctrines behind them must be seen as responses to the perceived threat posed by American decisions.²³

Military doctrine evolution in the former Soviet Union and Russia today, therefore represents an amalgam of many factors. The effect of the international political environment and an assessment of the probability of war, over time, forms the political component of doctrine. The evolution of Soviet military doctrine reflected foreign doctrines, especially that of Clausewitz and German "blitzkrieg." Past Soviet experience and history formed the Soviet perspective of war. World War II, with its ten million Soviet deaths, had a profound effect.²⁴ Internal political, economic, and social constraints, as well as the nature of Soviet decision making, greatly affected the nature of doctrine. Technological innovation also had a key role. The military doctrine of the former Soviet Union arose from the interaction of this multitude of often conflicting factors.

Post World War II Stalin's Era (1945-53)

The effect of World War II marks this period. The formative impact of the war led military doctrine to cast all future war in the mold of that experience — protracted land war, with ground troops directly supported by tanks, artillery, and aircraft. Soviet leaders believed surprise attack would

²³Michael McC Gwire, "Soviet Military Doctrine: Contingency Planning and the Reality of the World War," *Survival*, (May-June 1980), 107, 112.

²⁴One analyst stated, "Lessons learned by the Soviet military leadership during World War II...provided the most important impetus to the development of modern Soviet military doctrine." See Schneider, William, Jr., "Soviet General-Purpose Forces," *Orbis*, (Spring 1977), 96. The estimated 10 million losses is from John Erickson's Editorial Commentary to Defense Minister S. Sokolov's *Main Front: Soviet Leaders Look Back on World War II*, (London, UK.: Brassey's Defense Publishers, 1987): p. 327.

characterize this period.²⁵ Although the war laid the foundation of military doctrine, there was little critical examination of Soviet major failures in 1941 and 1942. Furthermore, Stalin placed great importance on atomic weapons and rocketry for the international prestige.²⁶ Despite Stalin's xenophobic reaction to the West, the NATO military environment influenced Soviet military doctrine. U.S. superiority in strategic nuclear weapons and airpower prompted a Soviet emphasis on strong conventional forces and offensive counterattack into Europe from Soviet bases in Eastern Europe.

Shaping the military doctrine was also the international political environment and Marxist-Leninist ideology. The Soviets saw capitalism encircling them, with the United States as its superpower. Marxist idealism included the concept of the inevitable violent clash between capitalism and socialism. This shaped the objective constraints and historical experiences that reinforced the Soviets view of the world and their military doctrine. More than any other factor was the role played by the nature of the internal Soviet political system. Under Stalin, the Soviet Union became even more authoritarian. He elevated to doctrinal status those factors he believed were responsible for winning the war. Stalin ignored developments in conventional weapons, the role of surprise on the battlefield, foreign developments, and any failures the Soviets may have had during the German push to Moscow, Leningrad, and Stalingrad. He regarded these all as irrelevant to victory.

If conventional warfare occurred, both defense and offense played major roles. Victory resulted from accumulating successful battles fought along slowly moving continuous *Fronts*. Frontal breakthroughs occurred by deliberately massing forces on a main axis of attack. Men, tanks, artillery, and aircraft were concentrated in the strike sectors for speed, firepower and shock to penetrate, envelop, and thrust into the enemy's rear areas. Combined arms, with preeminent ground forces in a European environment was the primary vision of future war.²⁷

²⁵I. Stalin, "O velikoz otechestzennoi voinye Sovetskogo Sovuza," in Adelman, Jonathon R., The Evolution of Soviet Military Doctrine, 1945-84," *Air University Review* (March-April 1985): 28.

²⁶David Holloway, *The Soviet Union and the Arms Race*, (New Haven, CT: Yale University Press, 1983): 83.

²⁷V. D. Sokolovskii, *Soviet Military Strategy*, translated by Herbert Dinerstein, Leon Gouré, and Thomas Wolfe, (Englewood Cliffs, NJ: Prentice-Hall, 1963): 83.

Khrushchev's Era (1954-64)

Freed from the stupefying control of Stalin, military doctrine changed significantly under Khrushchev. The major doctrinal trend was to adapt the new nuclear weapons, missile technology, and means of conflict to the old views and concepts of future war.²⁸ Khrushchev dropped the idea of the inevitability of war between socialism and capitalism. He did not see war as a protracted affair between massed conventional ground forces in Europe. Instead, war would result from the inevitable escalation of a small conventional war into a nuclear one. Short, intense, massive exchange of nuclear weapons delivered by rockets and aircraft dominated this view of war.²⁹ Because of this outlook, Khrushchev downgraded and partially demobilized ground forces and tactical air forces. Conventional options were rendered obsolescent, and the Strategic Rocket Forces emerged as preeminent receiving the lion's share of the Soviet defense budget.

The new doctrine connoted that enemy forces would be dealt a nuclear strike to weaken them, and then they would be attacked by tanks and mechanized forces at high tempo. Nuclear weapons became the means of establishing favorable conditions for the rapid advance of the ground forces. With the defense weakened, the ground forces would break through, avoid a frontal assault on strong points, and carry out flexible maneuvers to deal decisive blows to the enemy's flanks and rear.³⁰

This view of the future battlefield led to the offense becoming the dominant form of battle to the Soviets. Such a doctrine accordingly emphasized the role of surprise. War was not likely to last long, so the initial period would be the most important. Both sides would try to achieve the initiative at the start. This doctrine created a different set of contributions for airpower. Instead of being viewed as long range artillery in support of the ground forces, it became a prime instrument to deliver the nuclear blows. Additionally, it was the force of choice preventing an enemy from delivering his nuclear response to the Soviet offense.³¹

²⁸S. N. Koslov, *The Officer's Handbook: A Soviet View*, translated by the DGIS, Secretary of State, Government of Canada, (Washington, DC: U. S. Government Printing Office, 1971):29.

²⁹Marshal Sokolovskii pointed out that "...armed conflict in ground theaters would also be different." He predicted that missile attacks would become the primary means of defeating an enemy's ground forces, missiles, tanks, and aircraft. He saw nuclear weapons as the primary means of resolving combat in a theater of military operations. See Sokolovskii, V. D., *Soviet Military Strategy*, pp. 299, 306.

³⁰V. Reznichenko, "Soviet Tactics on the Nuclear Battlefield," *Voennaya Mysl* (June 1965): 78-79.

³¹S. Biryuzov, "The Lessons of the Beginning Period of the Great Patriotic War", *Soviet Military Review*, No. 8, (1964): 26.

Other factors influenced doctrine evolution. The U. S. strategic nuclear superiority and cold war challenge led to the Soviet policy of preemption. On the domestic side, populist reforms and advances in technology emphasized modernity and international competition, especially with the United States. By not stressing the inevitability of idealistic war, the Marxist-Leninist dialectic had less impact on the military doctrine than under Stalin. The experience of World War II continued in its influence on doctrine; however, Soviets began to analyze the failures in the 1941–42 operations to prevent their recurrence.

Brezhnev's Era (1964–82)

Only minor changes in thought regarding the nature of future war occurred under Brezhnev. Given the massive nuclear capabilities on both sides, military doctrine during this era reflected a belief that conflict would eventually involve large-scale exchanges of nuclear weapons.³² Conventional options, and the concept of strategic operations within the Western TVD opposite NATO, became dominant.³³ Central to this doctrine was the belief that a Warsaw Pact strategic conventional offensive could preemptively deny NATO any incentive to initiate a nuclear war. Success depended on (1) attaining early air superiority (2) timely and discrete cooperation among the Warsaw Pact allies, and (3) strategic surprise.³⁴

The primary doctrinal change was the reemergence of conventional operations in a major war. The new doctrine postulated an initial conventional phase at the start of a war. If a balance of forces existed between both sides, the initial conventional phase might last quite a long time. Given that the enemy might strike with nuclear weapons first, the initial conventional phase took on very specific characteristics. Time was the “coin of the realm.” Friendly forces needed to destroy the enemy’s advance defense lines and the enemy’s tactical nuclear weapons quickly. The initial conventional strikes had to seize as many enemies critical targets as possible to disrupt the enemy’s defensive position.³⁵

As in the Khrushev era, doctrine continued to emphasize surprise, especially its strategic value. The most dangerous, and likely scenario to start a war, was a surprise attack by the enemy. Given

³²M. Povaliy, “Development of Soviet Military Strategy,” *Soviet Military Review*, (February 1967): 70.

³³Wardak, *Voroshilov Lectures*, 382.

³⁴Hines and Mahoney, *Defense and Counteroffensive*, 7.

³⁵B. Samorukov, “Combat Operations Involving Conventional Means of Destruction,” *Soviet Military Review*, (August 1976): 28–30.

scenarios based on speed and surprise, it is logical that the doctrine insisted on the primacy of the offense. An external international effect influencing doctrine was the Soviet Union's achieving nuclear parity with the United States. For the first time, the Soviets possessed a credible nuclear offensive capability to deter nuclear escalation. In the international political arena, Soviet tensions eased with other countries. As the Soviet economy began to expand domestically, they could field the forces necessary to carry out the military doctrine they espoused.

Perhaps two of the most important factors influencing military doctrine were the influence of foreign military doctrines and changes in the nature of the Soviet political system. In 1961, the United States moved away from an exclusive nuclear response (massive retaliation), to selective nuclear options (flexible response). Thus, conventional operations became more interesting to Soviet planners. The historical significance of the USSR being involved in two major world wars on the continent continued to influence military doctrine's reliance on large conventional forces. More importantly, the internal political apparatus under Brezhnev became more conservative, pluralist, and bureaucratic in decision-making. The military, KGB, and heavy and light industry all received representation on the Politburo. As a result, significant real appropriations increased to each of these sectors each year. In this context, a change in military doctrine to one emphasizing a conventional option enhanced the role of the ground forces and again made them "...a more integral and legitimate actor in the decision making process."³⁶

Gorbachev's Era (1983–89)

This era saw perhaps the most sweeping changes in Soviet military doctrine. In the early part of this period, the doctrine changed very little from what it had been under Brezhnev. In the mid-1980s, Gorbachev's *perestroika* (restructuring) markedly accelerated changes in military doctrine. An emphasis on the strategic defense, rather than preemptive offensive conventional strikes, marked the doctrine emerging from this period. Many factors drove changes to this "defensive" military doctrine. That change in the

³⁶Jonathan Adelman, "The Evolution of Soviet Military Doctrine: 19945–1984", *Air University Review* (March – April, 1985): 33.

doctrine was inevitable in the comments of then Soviet Foreign Minister Eduard Shevardnadze, regarding the connection between domestic and foreign events:

...the achievements of our foreign policy would be much more impressive if we could assure greater internal stability. The numerous misfortunes that have befallen our country recently, the critical situation in the economy, the state of ethnic relations and natural calamities are reducing the chances of success in our foreign policy. The policy of reform thanks to which our country has restored its good name is undoubtedly giving rise in the world to a feeling of compassion and a desire and readiness to help us. But it should be frankly said that if our domestic troubles are multiplied by conservatism and ill will, intolerance and selfishness and clinging to dogmatic principles of the past, it will be more and more difficult for us to uphold the cause of peace, reduce tensions, fight for broader and irreversible disarmament, and integrate our country into the world system. That is why our diplomats are not living with their heads in the clouds. Their thoughts are turned to the harsh realities of our domestic life.³⁷

Military planners and politicians firmly believed that escalation to a nuclear war would destroy the Soviet state. They saw that their previous preemptive doctrine created a deadly paradox. Rapid conventional success against NATO on any axis might accelerate NATO's decision to nuclear first use — exactly what preemption was trying to preclude. Thus, the previous Soviet strategic concept contained the seeds of its own destruction. Secondly, in the 1970s and early 1980s, NATO leaders perceived the Soviet buildup as threatening and destabilizing. As such, NATO responded with deliberate political and military measures. The resultant NATO buildup in technologically superior forces, and the political will for rapid reinforcement, decreased the Soviets' likelihood to win a conventional war in the initial period.³⁸ Additionally, the NATO buildup forced the Soviets to ensure their industry and technology kept up with the NATO response. The result was a draining military competition with the civilian economy that economically and technologically drained the Soviets. The maintenance of a military capability to carry out a preemptive doctrine was a burden the Soviet economy could not endure. Third, the economic drain exerted indirect costs. The Soviets became politically and economically isolated from the most advanced countries of the world that they needed to enhance technology and hard cash transfers. The direct costs imposed by the military's demands for the work force, material, and technology exacerbated the Soviet's

³⁷Shevardnadze's comments contained in Dr. Robert F. Miller, "Echoes of *Perestroika*," *Pacific Defense Reporter*, (December 1989–January 1990): 7.

³⁸Graham T. Allison Jr., "Testing Gorbachev," *Foreign Affairs* (Fall 1988): 23–26.

decline on the world's stage. Finally, the Soviet Union's internal politics were in turmoil during this period. The impact of Marxist-Leninist ideology virtually disappeared from the formation of military doctrine. The Soviets' put their view of others on a "back burner" as they concentrated on their view of themselves.

In 1985, the Soviet political leadership redefined the military doctrine to support the pressing political, economic, and societal concerns. Under the new doctrine, conduct of the defensive operation was a precursor to the preparation of strong conventional counterstrikes, followed by a concentrated counteroffensive. The military strategists presented the defensive phase as a temporary measure to buy time in the initial period of a conflict. The Soviets would use this time to mobilize, reinforce and move rear echelons forward for the counteroffensive. The official presentation of the new doctrine focused almost exclusively on the initial period of the defense, with little said about the counterstrike and counteroffensive periods.³⁹ The doctrine shifted away from the aggressive nature of the Brezhnev years. In its place was a so-called "defensive doctrine," with the weapons associated with it being of "reasonable sufficiency."⁴⁰ The new doctrine led to the Soviet military developing plans to conduct a more prolonged initial defense.

Within the new military doctrine; however, was the provision to switch, perhaps suddenly, from the general strategic defensive to a counteroffensive. The transition to the counteroffensive marked the end of the initial period of war. This required that the strategic defensive must make up an "...intentional positional defense by Soviet armies and *fronts*... to exhaust and halt the maneuver component of an attacker's strike force."⁴¹ To achieve a sufficient correlation of force for the counteroffensive to succeed, the Soviets needed more forces beyond those prescribed in the new defensive doctrine. This put a premium on mobilization of strategic reserves and forward movement of follow-on echelons.⁴² Once forces from the strategic reserve moved forward, they would exploit the success achieved by the early *front* counterstrikes. Without fire superiority, the surprise, maneuver, and decisiveness of the counterstrike were impossible. Enemy deep

³⁹ Andrew C. Goldberg, "The Present Turbulence in Soviet Military Doctrine," *Washington Quarterly* (Summer 1988): 164-167.

⁴⁰ Raymond L. Garthoff, "New Thinking in Soviet Military Doctrine," *Washington Quarterly* (Summer 1988): 137-141.

⁴¹ Army General G. I. Salmonov comment in Hines and Mahoney, *Defense and Counteroffensive*, 89.

⁴² Jacob W. Kipp, "Where Then Is the Threat? — Soviet Military Doctrine in the Post-Cold War Era," *Military Review* (December 1990): 10.

fire systems and reconnaissance had to be destroyed, mostly by air, so that the maneuver forces had freedom of action.

The new doctrine, therefore, emphasized the importance of the initial period of war. The new doctrine mandated answering a NATO attack with a “devastating rebuff.” The doctrine was unclear whether this “rebuff” was limited to a counteroffensive only, or might be expanded to a full-scale strategic offensive operation. In 1987, Defense Minister Yazov called for a decisive offensive to follow a counteroffensive. By late 1989, when the new military doctrine emerged, he said, “Until recently, we planned to repel aggressions with defensive and offensive operations. Now, however, we are planning defensive operations as the basic form of our combat action.”⁴³

Central to this new “defensive doctrine,” however was a concept of military art prevalent throughout all Soviet military doctrine evolution. Victory only came by defeating the enemy, and the offense was the mode of operation that defeated the enemy. The Soviet military said little publicly on issues related to the debate over the counteroffensive. Hines and Mahoney feel the military’s reticence may have stemmed from the atmosphere of uncertainty and fluidity characterizing Soviet military affairs after the December 1988 announcement of unilateral force reductions. Michael M. Boll asserts that the Warsaw Pact continued to exercise with simulated nuclear weapons in sharp contrast to the doctrine’s reorientation emphasizing defensive preparation. He argues it is likely that the Soviet’s announced defensive position was more “in the realm of intent ... than to an immediate reform.”⁴⁴ The General Staff was probably trying to forego any further policy surprises, and were pursuing a course of flexibility and prudence.⁴⁵ Officially, they embraced the defensive; but, in their minds they continued an offensive spirit.

⁴³Dmitriy Yazov, “Interview with General Yazov,” *Danas*, November 15, 1989, pp. 54–58 (in JPRS-UMA-89-002-L, January 19, 1989): 8.

⁴⁴Boll uses evidence from Soviet and East German archives to make clear that the Soviet war plans were clearly offensive at a time when their “official” doctrine was defensive. He implies, at the operational, tactical, and training levels the Soviet and Pact military disregarded the defensive doctrine imposed by Gorbachev. See Boll, Michael M., “By Blood, Not Ballots: German Unification, Communist Style,” *Parameters*, Spring 1994: 71–75.

⁴⁵Hines and Mahoney, *Defense and Counteroffensive*, 100.

Immediate Pre-Gulf War Era (1990–91)

This period marked the end of communism, the breakup of the Warsaw Pact, the dissolution of the Soviet Republic, the rise of Yeltsin, and formation of the Russian Federation. Gorbachev announced unilateral force reductions in Europe in 1989. The Soviet military began a move toward professionalism versus conscription. Force development began to focus on qualitative factors rather than quantitative ones. The political factions reassessed the military threat from the West after force reductions and declared them less threatening. The Soviets' doctrinal evolution plate was overflowing.

The central theme of doctrine evolution during this period was how to make "defensive doctrine" and "reasonable sufficiency" work after military restructuring. According to Lester Grau of the Foreign Military Studies Office, many indicators show the declaration of a defensive doctrine was "a purely political decision made for economic and political purposes and imposed on the military with little regard for the military logic of that doctrine."⁴⁶ He points out that Soviet professional books and journal articles after the new doctrine declaration continued to reflect the Soviet military's conservative approach to operational art. Suddenly, the Soviets found themselves on a trip down the Yellow Brick Road, where perceptions and reality would come into sharp conflict.

The Soviet's view of the future battlefield emphasized nonlinearity. Their fielding systems optimized for deep battle peaked just before Gorbachev became General Secretary. New U.S. and NATO systems were clearly a generation ahead of those of the Soviets. The role of precision guided munitions and electronic warfare had added a great combat additive to NATO forces. The Soviets were clearly behind; however, they did not intend simply to mirror image NATO's reliance on technology as a force multiplier.⁴⁷ Soviet military professionals asserted they "will not follow in the wake of the probable enemy

⁴⁶Lt. Col. Lester W. Grau, "Continuity and Change: A Soviet General Staff View of Future Theater War," *Military Review* (December 1991,): 13–17.

⁴⁷Marshal Ogarkov had clearly seen this technological advantage coming for the West as early as 1984. He said, "...rapid changes in the development of conventional means of destruction and the emergence in developed countries of automated reconnaissance-strike complexes; long-range, highly accurate, terminally guided combat systems; remotely piloted vehicles; and quantitatively new electronic control systems make many types of weapons global and make it possible to increase sharply (by at least an order of magnitude) the destructive potential of conventional weapons bringing them closer in terms of effectiveness to weapons of mass destruction. The sharply increased range of conventional weapons makes it possible to extend combat not just to the border regions, but to the territory of the entire country. This was not possible in past wars. This qualitative leap in the development of conventional means of destruction will inevitably entail a change in the nature of the preparation and conduct of operations, which will in turn predetermine the possibility of conducting military operations using conventional systems in qualitatively new, incomparably more destructive forms than before." See Ogarkov, N., "The Defense of Socialism: Experience of the History of Modernity," *Krasnaya zvezda*, (May 9, 1984): 26.

and copy his weapons and employment concepts ... rather ... it intends to seek asymmetrical solutions, combining high combat effectiveness with economic efficiency."⁴⁸ The Soviet forces "are to become equipped with the latest in science and technology and become increasingly more flexible, cohesive, and mobile."⁴⁹ The revamped force structure was compact and ready, and easily expandable by an enhanced mobilization base. Finally, the restructured force relied on "fully automated command, control, communications infrastructure to facilitate mission execution."⁵⁰ The Soviets hoped the synergy produced by these force structure factors would amount to an order of magnitude increase in combat effectiveness.

The Soviet's vision of the future battlefield was of a high intensity, dynamic, high-tempo, air-land operation extending over vast land area and space. It orchestrated positional elements, preplanned fires, maneuverable fire elements, counterattack forces, and counterstrike forces. Maneuver defense using security zones and covering forces provided operational and tactical depth to the defense. Maneuver and counter maneuver forces insured the defense was viable and created conditions favorable to a counteroffensive. Tempo allowed the Soviets to use tactical units to counterattack into the operational depth of the enemy during operational/strategic counteroffensives.

An interesting characteristic of this doctrine is common to all Soviet military doctrine. The defense creates a favorable condition to culminate in an offensive. In this regard, the forces allotted to the defense were secondary to that of the counteroffensive and operational reserves exploited the counteroffensive. More than just blunting an attack, the defense became the means to seize initiative from the aggressor. It also created the conditions that would ultimately lead to defeating the enemy. Key to seizing initiative is counterstrike and preemption.⁵¹ Although this period became one of how to apply "defensive doctrine," it is interesting that *maintaining offensive capability was the essence of this defensive doctrine*. The forces necessary to carry out this doctrine become very similar to those contained in the Brezhnev

⁴⁸Vitaly Shabanov, "USSR Deputy Defense Minister for Armaments: The Country's Defense — New Approaches," *Krasnaya Zvezda*, August 18, 1989 (in FBIS-SOV-89-160): 119–122.

⁴⁹M. Moiseyev, "From Defensive Doctrine Positions," *Krasnaya Zvezda*, February 10, 1989 (in FBIS-SOV-89-028): 77–81.

⁵⁰Ibid.: 79.

⁵¹Grau, "Continuity and Change": 17–18.

military doctrine. The primary difference was a smaller, faster, more concentrated force structure. One can, therefore, view the ideas of "strategic defensive" and counteroffensive as the same doctrinal concept.

Throughout its evolution, Russian military doctrine took on certain primary characteristics. It took many forms and descriptions. But in looking at the doctrine closely, we see a persistent and recurrent theme involving offensive action. One can build a stereotype of the general characteristics of this doctrine. As the air phase of the Gulf War began in January 1991, this is the doctrinal template the Russians applied. It was the comparative paradigm they applied to measure Western military performance against their forty-year old ideas about the nature of future war. It was this stereotypical doctrinal idea they used to "click their heels together" to carry their offensive force structure wherever they wished their military strategy to go.

Soviet Military Doctrine Stereotype

In the strategic-operational plan, the high command of forces organized on one or more strategic axes in a TVD.⁵² The aim of the operational commanders within this TVD was to destroy the enemy and weaken their political alliances. The weakest points of the enemy received the major blows, and in areas where counterattacks were likely, friendly forces built defenses. The operational plan destroyed an enemy by envelopment. The key to the strategic-operational plan was achieving significant tactical superiority on a strike sector where the main blow fell, while accepting local inferiority on passive or secondary sectors not coming under attack. Soviet military planners stressed that only the offensive could achieve victory.⁵³ Seizing the initiative at the outset of hostilities, before the enemy could fully deploy, offered the Soviets the best opportunity to mass forces to achieve a breakthrough of the enemy's prepared defenses.

The Offensive

Successful deep operations required simultaneous fire suppression of the enemy throughout the depth of the defense, rapid penetration, and high speed deep attacks by specially organized forces to

⁵²John Erickson, "The Soviets: More Isn't Always Better," *Military Logistics Forum*, September - October 1984, 59-60.

⁵³David C. Isby, *Weapons and Tactics of the Soviet Army*, (London: Jane's Publishing, 1981), 12.

achieve the objective as quickly as possible.⁵⁴ Motorized rifle, tank, and air assault forces characterized the maneuver for these quick, high-speed strikes. At the strategic level, armies arrayed as *Fronts* to give the maximum initial blow, achieve momentum, and carry the attack into the enemy's rear. The armies deployed over a broad frontage in a single echelon of divisions. At the tactical level, divisions attacked as regiments and battalions.⁵⁵

Echeloning forces built pressure on the weakest sector. Generally, combined arms armies made up the first echelon of a *Front*, with tank armies normally in the second echelon. The *Front's* first echelon contained the bulk of its forces. The mission of this first echelon was to overcome the enemy's defenses and attack through to the immediate operational depths. The *Front's* second echelon, normally one army, had the mission to exploit the success of the first echelon, and to continue the main thrusts of the offensive through to the subsequent objective. This idea maintained a significant element of force out of contact with the enemy until the first forces in contact either reached their objective, or achieved a breakthrough. The intent of echeloning was to ensure freshly committed forces were available for exploitation.⁵⁶ Given the importance Soviet planners gave to the attack, the Soviets regarded the breakthrough as their center of gravity upon which the operational, and by inference the strategic, objectives rested.⁵⁷ The second operational echelon contained up to one-half of the entire *Front's* committed force to exploit the breakthrough and advance into the enemy's rear.⁵⁸

Air support of the ground forces during the offensive consisted of four stages. First, was support of the movement forward. Priority in targeting during this stage was deep targets, especially nuclear weapons, enemy aircraft on airfields, and combat helicopters — forces that might strike friendly supported forces while they were still far from the forward edge of the enemy defenses. The second stage occurred before the onset of a ground offensive across a specified frontage. The intent of this stage was to increase

⁵⁴U.S. Army, *Soviet Armed Forces*, (Carlisle, PA: War College Press, 1988), 46.

⁵⁵David M. Glantz, "Soviet Offensive Ground Doctrine Since 1945," *Air University Review* (June - July 1983): 32-33.

⁵⁶John Erickson, Lynn Hansen, and William Schneider, *Soviet Ground Forces: An Operational Assessment*, (Boulder CO: Westview Press, 1986), 214-218.

⁵⁷I. Krupchenko, "Methods of Exploitation in the Operational Depth with Forces of Tank Armies and Tank and Mechanized Corps," *Soviet Military Historical Journal*, 1981, 70-81.

⁵⁸A. I. Radzievskiy, *Army Operations*, ed. and trans. Soviet Studies Research Center, (Sandhurst, UK: 1977), 61.

the mass of fires by combining artillery and air strikes in the attack preparatory stage. Third, was the direct support of ground forces after the offensive started. This stage was an extension of the second stage, and concentrated on targets beyond the range of *frontal* artillery and missiles. The Soviets called the final stage the “air accompaniment.” This stage occurred during the advanced stage of the offensive when the progress of the ground forces had outstripped the prepared fire support plan. The intention of this stage was to ensure ground force support as they penetrated the defense.⁵⁹

The Air Operation

Generally, strategic operations began with an air offensive. As part of a strategic offensive operation, an air operation was a joint operation of all aviation resources coordinated with the other branches of aviation, and other services of the armed forces on an operational-strategic scale.⁶⁰ Air operations were the aggregate of mass strikes, air engagements, and successive actions coordinated and conducted simultaneously, or successively, by air force operational formations. Their intent was to destroy enemy air and operational and strategic reserves in the TVD. Additionally, the air operation prevented an enemy strategic movement within the TVD, and destroyed the enemy's military and economic potential.⁶¹ Its component parts included:

1. Air operations by air armies of operational-strategic and strategic air forces.
2. Combat actions *Frontal* aviation to destroy enemy air on airfields and in the air.
3. Joint action by the units of an air army of the operational-strategic air force and by naval aviation to destroy aircraft carriers.
4. Attacks by missile troops using conventional cluster munitions against airfields, antiaircraft defenses, and enemy command and control systems.
5. Joint action of the *frontal* fighter aviation, *frontal* antiaircraft defense, and operational formations of the National Defense Forces against enemy air forces in the air.

⁵⁹U.S. Army, *Field Manual (FM) 100-2-1, The Soviet Army: Operations and Tactics (Final Draft)*, (Fort Leavenworth, KS: U. S. Army Combined Arms Center, 18 June 1990): 11-3 – 11-4, 11-24 – 11-27.

⁶⁰Philip A. Peterson and John R. Clark, “Soviet Air and Anti-air Operations,” *Air University Review* (March–April 1985): 42.

⁶¹Ghulam D. Wardak, *The Voroshilov Lectures: Material from the Soviet General Staff Academy*, Vol. I and II, ed. Graham H. Turbiville, Jr., (Washington, DC.: National Defense University Press, 1989): 315–316.

6. Actions by the forces of the *fronts* to neutralize enemy antiaircraft defense and to protect air force strike groups en route to their objectives, and to advance and overrun or threaten major airbases.⁶²

Thus, the aim of the air operation was to destroy enemy main aviation groupings and to create a favorable air situation. They required air forces to seize the initiative, retain strike power, provide freedom of movement to *frontal* forces, and guarantee operational success. As the air operation concluded, aviation units revert to direct support of the ground units.⁶³ The air operation's main aim was to establish air superiority. It was the principal component of the total Soviet effort to negate enemy nuclear capability in the initial periods of a conflict. It differed from supporting the general offensive because it was not coincidental with the advance of ground maneuver forces.

This chapter contained a generalized description of the Russian conventional military doctrine structure on the eve of the Gulf War. The description was a characteristic overview of forty-plus years of Soviet/Russian doctrinal evolution. This was the military doctrinal template through which the Soviets watched the Allied forces in the Gulf War. No matter how the Soviets packaged and labeled their military doctrine, by late 1991 it had assumed an offensive stereotypical paradigm. The following chapters will discuss the Soviet/Russian view of the Gulf War. What is more important, they describe how the Russians modified the stereotype of the military doctrine based on the lessons they believed they learned from the Gulf War.

⁶²Ibid., 316-327.

⁶³Ibid., 312-313.

CHAPTER 3 *Russian Impression of the Gulf War*

“... you can imagine how pleased I was when I heard your house had fallen on the Wicked Witch of the East. When you came to me I was willing to promise anything if you would only do away with the other Witch; but, now that you have melted her, I am ashamed to say that I cannot keep my promises.”

— Frank L. Baum
The Wizard of Oz

The Soviets became interested in the Persian Gulf War of 1991 as a “laboratory” for testing Western military capability. Studying the Gulf War was important for the Soviets as they were in the process of redefining their military doctrine in response to tremendous internal factors within the former Soviet Union. Ben Lambeth, of the RAND Corporation said, “Operations Desert Shield and Desert Storm occurred at a time when the Soviet political system was hopelessly unsuited to profit from any teachings of the war because of more pressing distractions, notably an economy in ruin and the rapidly accelerating disintegration of the Soviet Union.”⁶⁴ Even so, the Russians have done quite well at dissecting, perceiving, and understanding what happened in the Gulf War. As internally directed as Soviet military doctrine is, military history and experience are key to how the Soviets form their doctrine. The Gulf War lessons they describe were influential in the form that the new Russian military doctrine eventually took. Simultaneously, they were building a force structure to fit that new doctrine. They saw the Gulf War as a useful exercise in defining the nature of future war.⁶⁵ They saw their old doctrine's "promise" melt away in the light of Allied performance as compared to the reality of the monumental social, economic, and political changes they were undergoing.

The Soviet High Command set up a special operations group when the war began. According to General of the Army Moiseyev, their task was “to gather, generalize, and assess information received, and

⁶⁴Benjamin Lambeth, *Desert Storm and Its Meaning: The Viewpoint from Moscow*, (Santa Monica, CA: RAND Corporation, 1992): v.

⁶⁵In fact, General V. Lobov, former Chief of Staff of the Warsaw Pact said that the Gulf War would give NATO an “unfair” advantage. He pointed out that the Warsaw Pact was in the process of dissolution, but NATO had the opportunity to test weapons in the Gulf. “The fact alone that the Warsaw Pact will soon disappear but NATO will remain means that there is no longer any parity.” See Richter, Brigitte, “Interview with General V. Lobov, Warsaw Pact Chief of Staff: The War has Become a Means of Destroying Iraq,” *Der Morgen*, February 18, 1991 (in FBIS-SOV-91-036): 81.

to evaluate the nature of the new arms and equipment being used, forms and methods of preparing and waging contemporary air-ground and amphibious assault operations, the control and communications' systems, and questions of overall support.”⁶⁶ General Moiseyev believed that the Gulf War was a testing ground for the state-of-the-art hardware of the U.S. and their NATO allies. He further believed that the results of the hardware's use would impact NATO structure and equipment in the near future. Finally, he believed the sands of Kuwait and Iraq were a U.S. laboratory for testing the forms and methods of preparing and prosecuting military actions. After the war, the Soviets convened several secret roundtables of their senior military leadership to discuss the “lessons learned” from the war.

Far more than just a discussion of lessons, these forums combined their analysis of internal and external factors with recommendations for doctrinal changes. The General Staff held an especially important roundtable on June 6, 1991, with then Minister of Defense Yazov chairing the discussion.⁶⁷ David M. Glantz, of the Foreign Military Studies Office notes that the Soviet General Staff assessment of the Gulf War followed six key elements: (1) the initial period of war, (2) the likely intensity and scale of combat, (3) the means (weaponry) to be employed, (4) the consequences for the Soviet economy and population, (5) the duration of the war, and (6) the influence of the U.S. and NATO doctrine on “reasonable sufficiency.” Glantz also points out that the significance of the Gulf War to the Soviets was that it “posed a new model of future combat in which the new military-technical dynamics of conventional combat not only have an impact upon the course and outcome of the initial period of war in the theater of military operations, but also have become synonymous with the *very outcome of the war itself* [emphasis added].”⁶⁸

What follows is a compilation of many Soviet and Russian reactions to the Gulf War. I categorized the reactions in the same way the Soviets described the specific principles designed by military strategy on requirements as determined by military doctrine. These characteristics take form in the concepts the Soviets define as strategy, operational art, and tactics. The General Staff's six key elements Glantz

⁶⁶Mikhail Moiseyev, “On Occasion of an Anniversary,” *Krasnaya zvezda*, February 29, 1991 (in FBIS-SOV-91-041): 53.

⁶⁷According to Timothy L. Thomas of the Foreign Military Studies Office at Ft. Leavenworth, KS, Chief of General Staff Moiseyev and Chief of the Main Political Directorate, Colonel-General N. I. Shliaga, among others presented reports and made recommendations on restructuring Soviet military doctrine. See Thomas, Timothy L., “The Soviet Military on ‘Desert Storm’: Redefining Doctrine?,” *Journal of Soviet Military Studies* (December 1991): 612.

⁶⁸David M. Glantz, “Soviet Military Art: Challenges and Change in the 1990s,” *Journal of Soviet Military Studies* (December 1991): 558, 565.

described above, also fit into these three principles: strategy (element number 1, 4, 5, and 6), operational art (element 2), and tactics (element 3). The "correctness" of the evaluation is not the focus. The intention is to represent Soviet reactions and impressions as they defined them. In the chapters following, I will show how these impressions and reactions led to significant changes in the direction of Soviet military doctrine.

Strategy

To the Soviets, strategy is what linked the political aims of the government with the posture of the military forces of the state. It is the factor that defined war's conditions and characteristics. It was through strategy that the Soviets identified and adapted experiences related to the preparation and conduct of past wars with the objective study of future wars. Analyzing the Gulf War was not just an exercise in weapons evaluation to the Soviets. It was a necessary and basic requirement of their strategy formulation process. The Gulf War reinforced many of the Soviets ideas about strategy. They altered their strategic concept about the characteristic of the danger or threat, the nature of future war, and the importance of the initial period of war based on what they saw happen during the Gulf War. Since the form of the strategic actions of the Armed Forces, their structure, operational art, tactics, and weapons development stem from strategy's affect on doctrine, we will explore strategy first.

The Threat

The Soviets' military doctrine for four decades centered on opposing NATO on the Central Plain of Germany. In analyzing the Gulf War, Soviet military leaders altered their perspective. They changed their view to emphasize conducting nonstandard means of waging war. Whatever the future structure of TVDs, the Soviets concluded most modern local conflict or war would be prosecuted using these new nonstandard methods.⁶⁹ In evaluating the causes of the Gulf War, the High Command drew several conclusions concerning the West. They believed that the U.S. was weak in signaling a warning to Hussein of their probable response in late June 1990, when Iraq massed forces at the Kuwait border. Another was the

⁶⁹Thomas, "Soviet Military on Desert Storm": 600.

failure of the UN to act against aggression in South Lebanon and Panama, thereby giving Saddam Hussein a false sense of security. Yet another was the view of the Western powers that they could achieve strategic goals through local conflicts, so that now they actually encouraged war. In all these beliefs, the Soviets reinforced their old mistrust of Western hegemony.⁷⁰

Future War

Major General V. Zhurbenko, deputy head of the main department of the Soviet General Staff, said in an interview with *Tass* that the Gulf War was “without analog since World War II.”⁷¹ Mary C. FitzGerald points out that Soviets' structure the armed forces according to their view of the nature of future war. She notes that Soviet military doctrine then is “riveted to future military capabilities and environments” even in the era of “new thinking” and *perestroika*. Under the influence of Marshal Ogarkov in the early 1980s, the Soviets began to focus on developing advanced conventional munitions (ACMs), energy-directed weapons, and space-based systems. The Soviets became convinced that wide-scale deployment of these weapons by their opponents was inevitable. Before the Gulf War, Soviet military theorists envisioned a future war whose political-military objectives were not driven by seizing territory, but by destroying the opponent’s military capability and infrastructure. To Ms. FitzGerald, the Gulf War represented a confirmation of how the Soviets envisioned future war. She noted three significant impacts on Soviet military thought. First, the Soviets saw a new arms race coming emphasizing implementation of strategic mobilization and deployments to theaters far from the homeland. Second, a new emphasis on the role of surprise as the key to victory was based on airpower being the main means of achieving it. Finally, the Soviets stressed that the Gulf War was the prototype of technological operations. She saw the Soviets response to the Gulf War as a confirmation of Marshal Ogarkov’s ideas about technology, an invalidation

⁷⁰See FMSO Daily Bulletin, July 22, 1991, Egorov, A., “Roundtable: Military Reform and the Ground Troops,” *Krasnaia zvezda*, April 18, 1991 (in FBIS-SOV-91-012): 29, and Korolev, S., “In Too Much of a Hurry with the Bombing,” *Rabochiaia Tribuna*, January 29, 1991 (in FBIS-SOV-91-023): 17.

⁷¹Oleg Moskovskiy, “Interview with Major General V. Zhurbenko, Chief of the Main Department, USSR Armed Forces General Staff,” *Tass*, February 26, 1991 (in FBIS-SOV-91-038): 11.

of the 1987 "defensive doctrine," a redefinition of deterrence in terms of non-nuclear parity, and finally, a cause for serious concerns about the future of U.S.-Soviet arms negotiations.⁷²

Soviet concepts of future war, as discussed in the previous chapters, focused on keeping war conventional. To achieve security parity, the Soviets assumed that having the same number of weapons as their adversary created stability. Their emphasis for forty years had been on quantity. In the 1980s, Marshal Ogarkov emphasized quality and high-tech. He redefined the type of war the Soviets might realistically envision and the adjustments they might have to make to their military art.⁷³ The Gulf War heightened and clarified the implication of future war and Soviet weapons' development.

The roundtable drew lessons from the Gulf War on the preparation and conduct of future war. It became apparent to the Soviets that war in the future (nonstandard, local, or environmental) required a mix of strategy and tactics. The old idea of a military doctrine with little flexibility to respond to a variety of threats was no longer viable. This, in turn, required a more varied force structure and strategic posture. Rapid reaction, rather than defensive parity, would need to become the hallmark of the Soviet strategy. The preparation for future war would require greater flexibility and diversity in the forces. Military scientists would have to rely on their creativity and adaptability to new circumstances, despite economic and political problems.⁷⁴ Again, the Great Oz chided the Soviets to pay no attention to the economic and political reality lurking behind the screen.

Local war, rather than conflict between two blocs of power in a TVD, replaced the Soviet view of the operational-strategic. Major General Vladimir Slipchenko of the General Staff noted that advanced-technology weapons, expended on such a large scale as the Gulf War, created a revolution in military affairs. He noted that future wars will have "no front lines or flanks," and that enemy territory is divided into "targets and nontargets." He noted that future war would involve the use of massive amounts of this

⁷²Mary C. FitzGerald, "The Soviet Military and the New Air War in the Persian Gulf," *Airpower Journal*, (Winter 1991): 65-66 and 76-77.

⁷³N. Ogarkov, "The Defense of Socialism: Experience of the History of Modernity," *Krasnaya zvezda*, (May 9, 1984): 26.

⁷⁴Thomas, "Soviet Military on Desert Storm": 615.

new technology and would be over quickly, "... the political structure will destroy itself, and there will be no need to occupy enemy territory."⁷⁵

The General Staff determined that local conflicts could lead to strategic victories. Rather than an incremental tactical – operational – strategic progression, strategic goals may be the first ones attained in future war. They saw a serious danger as the apparent inevitability of regional conflict could replace the old idea of inevitable class struggle. Local conflicts generate a different set of military-political objectives than do bloc to bloc struggles, so that the old concepts of struggles for national survival and unconditional surrender were no longer operative. Local conflicts that threaten vital national interests may warrant superpower intervention, although that superpower may not be a direct participant in the causes of the conflict. In many ways, the Soviets saw this as a cause of direct U.S. involvement, and their own indirect involvement in a dispute among Iraq, Kuwait, and Saudi Arabia. Non-standard warfare, employing weapons of terror (nuclear, biological, or chemical), or ecological warfare was seen as great a threat to the world as conventional warfare was in the past.

The Initial Period of War

The Gulf War heightened the Soviets' perception of the importance of the initial phase of war. The General Staff argued that preemption was the only way to avoid defeat in progressively threatening situations against a powerful opponent. In the future, there would be no time to develop a defensive phase with the ultimate objective of preparing and conducting a viable counteroffensive.⁷⁶ This became particularly important if the opponent waged an air operation similar to the size of that in the Gulf War.

The Gulf War vividly displayed the new strategic importance of the war's initial period. If fought with high-tech precision munitions and set the stage for future operations. More importantly, the Soviets realized that the initial period may actually decide the war, rather than simply influence its outcome and length. They understood that future weapons capitalized on the qualities of speed, mobility, lethality, and

⁷⁵V. Slipchenko, "Soviet Officers' Visit to Army War College," unpublished SASONET report from the Foreign Military Studies Office, (Ft. Leavenworth, KS: March 25, 1991).

⁷⁶A. I. Palyi "The Struggle with Systems of Combat Control in the Operations of NATO Armed Forces," *Voennaia msyl'* (1991) as discussed by Timothy Thomas, "Soviet Military on Desert Storm,": 602.

accuracy thereby significantly increasing the value of two of the Soviet's prized principles of war — surprise and initiative. One General Staff officer summarized this well by saying the "war's outcome was decided by gaining the initiative and winning air superiority; Hussein did not preempt and so he lost!"⁷⁷

The initial period of war underscored two very important combat elements: security and support. As discussed in our analysis of Soviet military doctrine, the Soviets originally considered these as secondary. In the Gulf War, these elements took on strategic importance. General of the Army Kloktov noted

Iraq made a strategic error. Its forces were prepared for a battle in which the means of 'strike' were preeminent. To civilized states this is a thing of the past. Now not only means of strike but also means of security such as reconnaissance, radio-electronic warfare, means of guidance, and effective defense are of prime importance. Therefore Iraq's strike means were unprotected.⁷⁸

Of all the factors the Soviets said had now changed the relevance of the initial period, the conduct of the air operation was the most important one. One General Staff officer described the air operation in three phases: an air defense penetration, a destruction of command and control, and finally strikes.⁷⁹ Lieutenant General A. E. Maliukov, then Chief of Staff of the Soviet Air Force, in a May 1991 issue of *Military Thought* said that the initial period of war confirmed the increased role of aviation to combat power. The Gulf War confirmed the impact of aviation on tactical surprise and its execution. Future war required an air capability to repel initial attacks, and then mount its own air offensive. The key, as the Soviets defined the Gulf War, was protecting the control of air forces and developing an ability of air commanders to act independently.⁸⁰

⁷⁷Statement in interview of General V. Gorbachev. See Buryga, Nikolay, "Interview with General V. Gorbachev... Tanks Will Not Save the Day," *Izvestiia*, January 21, 1991 (in FBIS-SOV-91-014): 18-19. Interestingly, Mr. Buryga asked General Gorbachev whether the poor showing of the Iraqis would "discredit our equipment in the foreign public's eyes." The General responded with an opinion almost constant throughout all the General Staff's impression of Soviet equipment vs. Iraqi operators: "As far as Soviet equipment is concerned, it is not so much a problem, I think, as the people operating it. Iraqi military professionalism is not, as we can see, up to the mark." Additionally, he remarked that "having no opposition in the air, the coalition will be able to carry out its task one way or another."

⁷⁸Moscow International Service television interview with General of the Army Kloktov. See FBIS-SOV-046, p. 46 and FBIS-SOV-086-S, p. 34. In addition to improving troop combat performance, force generation proceeded more smoothly and produced better-equipped and maintained forces than the Soviets were ever able to do. The result was an increased Soviet emphasis on improvements in organizational development and training, to include an advancement in the quest for a professional force.

⁷⁹G. Zhivitsa, "How Professionals Wage War," *Izvestiia*, January 19, 1991 (in FBIS-SOV-014): 20.

⁸⁰Kipp, *FMSO Bulletin*, July 22, 1991.

Of all the Soviet statements made about the Gulf War, Lieutenant General Yevseyev made an unprecedented proclamation for Soviet doctrine. In contrast to past wars he noted "the main content of the initial period can be the delivery by the belligerents of nuclear strikes or *strikes with conventional means of destruction* [emphasis added] ... for achieving the war's main objectives."⁸¹ In the past, Soviet military theorists believed only nuclear weapons achieved a war's main objective of destroying the opponent's war fighting capability in the initial period. To Soviet military theorists, the allies had achieved nuclear effects in the initial period by using high-tech conventional weapons.

Operational Art

Operational art defines the Soviet's method of concentrated employment. Operational art describes how Soviet forces are formed, organized, and employed to achieve the military strategy. It encompasses the operational level commanders' sphere of actions. As we saw earlier, Soviet operational art had become focused on speed, mass, shock, and firepower of preeminent ground forces, with other services in a supporting role. The success of the Allied air operation in the Gulf War caused Soviet military theorists to reassess their old concept of operational art.

Airpower's Role

One of the first assessments appearing in the Soviet press as combat actions began in the Gulf War regarded airpower's ascendancy. The Soviets noted that the priority of actions of the branches of the American Armed Forces (as possibly theirs by inference) had changed. *Tass* military analyst, Vladimir Chernysev commented

The "classic" form of combat gave the main role to land forces in military actions, and the air force supports them. Here [the Gulf War] everything has been different: I would say the basic blows of strategic, decisive significance were struck by the Air Forces.⁸²

⁸¹Quote from General-Lieutenant A. I. Yevseyev, "On Certain Trends in the Changing Content and Character of the War's Initial Period," *Voyenno-Istoricheskiy zhurnal*, No. 11 (1985): 14-15 as reported in Mary C. FitzGerald's, "Soviet Military and the New Air War in the Persian Gulf": 73.

⁸²Vladimir Chernyshev, "Tass Military Expert Views Military Maneuvers," *Tass*, January 17, 1991 (in FBIS-SOV-91-013): 8.

In May 1991, General Bogdanov of the General Staff chaired a roundtable discussion focused on the initial air operations of the Gulf War. In attendance were Colonel-General I. Maltsev, chief of staff of the PVO (Air Defense Forces); Lieutenant General A. Maliukov, Chief of Staff of the Air Force; Major General A. Gulko from the General Staff; and Rear Admiral A. Pauk from the naval staff.⁸³ The conferees agreed the coalition had overwhelmed the Iraqi's long-range missile radars. General Gulko remarked that the allied air operations had not succeeded in achieving the coalition's goals single-handedly. He did concede that the intent of the air campaign was to create the preconditions necessary for a consolidated victory by all the forces of the coalition with minimal losses. He noted that coalition airpower had achieved air superiority to the extent that they were able to operate with impunity, and that air strikes denied Iraq freedom of action and initiative.

The Soviets saw the Gulf War as a repudiation of Douhet's ideas about airpower.⁸⁴ They did not feel the Gulf War justified building force structure emphasizing strategic bombardment; however, they felt they needed parity in the ground-air-space weapons to present a credible deterrent to a potential threat.⁸⁵ Although the Soviets saw success in war as a joint effort of all the services, Lieutenant General of A. E. Maliukov found Douhet's ideas of attacks against industrial and population centers as relevant to the Gulf War's outcome.⁸⁶ He viewed these strikes as part of the psychological warfare conducted by the Allies to wear down the Iraqi people. He further noted that airpower's chief contribution was in interdiction, close air support, and air superiority to enhance the success of ground operations. In a May 1991 issue of *Military Thought*, he said that the initial period of war confirmed the increased role of aviation to combat power.⁸⁷ The Gulf War confirmed the impact of aviation on tactical surprise and its execution. More

⁸³Colonel V. P. Chigak, "Roundtable Discussion," *Voyennaya mysl*, May 28, 1991 (in JPRS-UMT-92-002-L): 35-41.

⁸⁴Ben Lambeth points out that the Soviets incorrectly identified the wrong airpower theorist. Rather than Douhet, he claims Desert Storm came closer to supporting Billy Mitchell's ideas. He notes David MacIsaac: "Whereas Douhet had looked on aircraft other than bombers as ancillary — nice to have, perhaps, but not absolutely necessary — Mitchell could argue the case for all types. The important thing for him was not strategic bombing, but rather the centralized coordination of all air assets under the control of an autonomous air force command, freed from its dependency on the army. If that goal could be achieved, he felt, everything else would fall into its place." See Lambeth, Benjamin, "Desert Storm and Its Meaning": 50 and MacIsaac, David, "Voices from the Central Blue: The Air Power Theorists," in Peter Paret, ed., *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*, (Princeton: NJ, Princeton University Press, 1986): 631.

⁸⁵Slipchenko speech at National Defense University, March 15, 1991, as described by Timothy Thomas in "The Soviet Military on 'Desert Storm': Redefining Doctrine?," *Journal of Soviet Military Studies* (December 1991): 598.

⁸⁶Jacob Kipp, "First Lessons of the War," *Foreign Military Studies Office (FMSO) Daily Bulletin*, (Ft. Leavenworth, KS: July 22, 1991).

⁸⁷FMSO Daily Bulletin, July 22, 1991.

importantly, he said the defensive cast of the Soviet military doctrine at that time implied an air capability able to repel initial attacks and mount its own air operation. He went on to state that this would only occur by protecting the control of the air and giving air commanders the ability to operate independently.

General Maliukov also said the Gulf War "constituted a textbook example of what air supremacy means — both for the country that gained it and for the country ceding it to the opponent." When asked whether he felt the war had reflected a practical application of the American AirLand Battle doctrine, he answered:

I do not think so. There was no classical 'air-land battle.' Why? The point is that this war — and here General Dugan comes to mind — was obviously conceived from the outset as an air war to wear out the opponent by means of air strikes, disorganize his command systems, destroy his air defenses, and weaken the ground forces' striking power. In terms of the choice of objectives, it was more a case of a classic air offense. And these objectives were achieved. Broadly speaking, *this is the first time we have seen a war which aviation took care almost entirely of all the main tasks* [emphasis added].⁸⁸

The mobility, speed, and accuracy of modern weapons systems are combat multipliers. This factor makes surprise and initiative, especially in the initial period the most important of all military principles. During the Gulf War, the Soviets defined Allied airpower as devastating. Retired Soviet military scientist, Major General Vorobyev underscored the unique role of airpower when he said it was "the decisive role of fire power in destroying the enemy ... this has never been demonstrated so clearly in any operation in the past."⁸⁹ He called for a "prompt and fundamental review of existing [Soviet] ideas and propositions in the field of tactics and doctrine." He concluded his remarks by noting that Iraq's defeat was not caused by "any weakness in weapons or combat equipment, but by the habit, dogmatism, stereotype, and conventionalism in the leadership of the troops ... And this is a graphic lesson for every-

⁸⁸A. Sidorov, "Interview of Lieutenant General of Aviation Maliukov: The Gulf War: Initial Conclusions — Air Power Predetermined the Outcome," *Krasnaya zvezda*, March 14, 1991 (in FBIS-SOV-91-053): 50-51. President Bush also noted that "jointness" need not imply using each service each time in equal measure, but rather means using "the proper tool at the proper time." Lt. Col. Ed Mann (USAF) expanded this idea. "There is nothing wrong with Air-Land Battle so far as it goes. It's fine when ground forces are the primary tool, but it assumes they always will be. While airpower plays an important and integral role in the ground battle ... that's not all it can do. Sometimes airpower alone, or in a lead role, can be more effective and save lives. Airpower doctrine doesn't deny utility to Air-Land Battle. It goes beyond it to consider additional options." See Mann, Edward C., "Operation Desert Storm? It Wasn't Air-Land Battle," *Air Force Times* (September 30, 1991): 27, 61.

⁸⁹Major General I. Vorobyev, "Are Tactics Disappearing?" *Krasnaya zvezda*, August 14, 1991 as reported by Ben Lambeth in *Desert Storm and its Meaning*: 67-69.

body. This *includes our armed forces.*⁹⁰ Airpower was less effective against small, highly mobile targets, such as Scud launchers; but, on the operational and tactical level, the Iraqis made errors forced on them by the loss of initiative and Allied air superiority.⁹¹ The Soviets concluded that any force trying to defend without mobility, or without the ability to strike a maneuvering enemy from the air, was doomed to fail. The Soviets watched the Allies maneuver freely, deceive the Iraqis, mask the main attack, and effectively strike at the weakest point.⁹²

Maneuvers by large ground forces required air superiority. The Soviets described airpower, electronic warfare, and air defense, or the Iraqis' lack of it, as significantly more important in future wars. The Soviets asserted that the most important forces for the future would be the strategic rocket forces, air forces, and air defense forces.⁹³ To a certain degree, aircraft assumed the primary role as the most maneuverable and long-range means of fighting, for example, accurate weapons and air superiority destroyed any potential Iraqi combat advantage in tanks.⁹⁴ Another General Staff officer commented that the only counter to the massed aviation strikes was a powerful air defense system equipped with the most modern weapons.⁹⁵

For airpower to be effective over any length of time, operational sustainment was imperative. The numbers of sorties the Allies generated each day impressed the Soviets. In their preliminary calculations, the Soviets never thought that the Allies could sustain the sorties actually produced. Large-scale air operations, involving coalition aircrews, sustaining two and a half sorties each day over one and a half months seemed incredible.⁹⁶

The Soviets gave the Allies' air forces high scores for countering Iraq's long-range radar systems. This caused the Iraqi's to substitute short-range and television-optical systems for fire control systems.

⁹⁰Ibid. (Vorbyev)

⁹¹Thomas, "Soviet Military on Desert Storm": 600.

⁹²FBIS-SOV-91-046 and 086.

⁹³Colonel-General S. Bogdanov of the General Staff in an interview. See Dokuchaev, Anatoliy., "View from the General Staff": 65-67.

⁹⁴Nikolay Buryga, "Tanks Will Not Save the Day,": 18-19. General Gorbachev was asked about Iraq's numerical superiority in tanks. He replied that was true and the bulk of the Iraq tanks were the Soviet's newest T-72s. He pointed out, however, the "...400 Apaches are capable of nullifying Hussein's advantage ... having no opposition in the air, the coalition will be able to carry out its task one way or another."

⁹⁵FMSO Bulletin, July 22 1991.

⁹⁶Slipchenko response to a question at the Army War College, March 15, 1991, as described by Timothy Thomas in "Soviet Military on Desert Storm": 600.

This in turn led the allies to fly higher and at night. The Soviets drew the conclusion that the allies "owned the night," and could operate their air forces with impunity.⁹⁷

The General Staff examined the air operation in a March 1991 issue of *Morskoi Sbornik*. The article stressed that command of the air made a systematic air campaign possible. Captain First Rank K. Kzheb, of the Soviet Navy, outlined the allied air operation.

The primary stake in the war was placed in the allies' massive use of their airpower to keep losses on the ground to an absolute minimum. The immediate goal was to disarm, blind, deafen, and decapitate the enemy from the very outset to achieve control of the air. Then, allied airpower was applied at will to systematically the Iraqi strategic infrastructure and "isolate the area of upcoming combat operations, along with concurrent destruction of Iraq's troops and military equipment."⁹⁸

In the initial period, the air campaign struck Iraqi command and control, air defense, and military-industrial targets. A shift to interdiction aimed at isolating the region of combat operations followed the initial phase. Following the air interdiction phase, the center of gravity for the air operation shifted to the direct support of the ground forces.⁹⁹ The Soviets also realized that space was an element of the future battlefield. The Soviets said that for the first time, the battlefield contained a third coordinate, and they believed it had played a decisive role in the Allied victory.

Some observers from the General Staff were not as enthusiastic about airpower's success as most. Several officers interviewed for the May 1991 *Military Thought* article stated that the Allies expected too much from the air operation. They thought the Allies expected more decisive results than were actually attained. They attributed "airpower's failure" to be decisive to the multinational forces devoting too many assets to the destruction of Iraq's military-industrial and national command assets. They felt this reduced the ordnance available for interdiction and close support the ground forces — a logical conclusion given how most Soviets viewed the relationship between airpower and ground forces. They also thought Iraq's efforts at tactical deception were effective in diverting strikes. They also felt that no matter how extensive the Allied reconnaissance efforts had been, they had not located all the decisive targets. One officer stated

⁹⁷FMSO Bulletin, July 22, 1991.

⁹⁸K. Kzheb, "Naval Forces in the War Against Iraq: The First Results," *Morskoi sbornik*, No. 2, February 1991, pp. 59–63 as discussed in Ben Lambeth's *Desert Storm and its Meaning*: 71.

⁹⁹Timothy Thomas, "Soviet Military on Desert Storm": 605–606.

that the air strikes in the initial period only confirmed an old truth that airpower alone could not achieve victory in war. I provide these comments to show that not all the Soviets were completely convinced about airpower's potential. It is important to note though, that those high ranking officers of the General Staff most influential in developing military doctrine were convinced of airpower's decisiveness in creating the conditions that ultimately defeated Saddam Hussein's military.

During a June 1991 Roundtable, Lieutenant General of Aviation Maliukov noted that the Soviet Air Force needed operational, materiel, and technical support as well as modern equipment, to fight and win a future war. "We need an optimum correlation between combat and backup means. Everything must be developed comprehensively and then, when the whole system comes into play, it will produce the corresponding results."¹⁰⁰ Timely procurement concerned air defenders. They contended Soviet military science was in bad shape; however, nothing could ensure the "fastest possible delivery of necessary weapons to the defense structure."¹⁰¹

Perhaps the strongest proponent of airpower's role in the Gulf War was Major General Slipchenko of the General Staff. He noted that the Allied air campaign set the outcome from the opening moments of the Gulf War. He even intimated that the war had cast serious doubt on the relevance of the ground forces as traditionally structured. "The Gulf War supports the fact that *air strikes can by themselves form the basis of victory* ... airpower was responsible for the victory, because air superiority altered the complexion of the war from the very outset."¹⁰²

¹⁰⁰General Maliukov's comment as reported by Sidorov, A., "Interview of Lieutenant General of Aviation Maliukov: The Gulf War: Initial Conclusions — Air Power Predetermined the Outcome," *Krasnaia zvezda*, March 14, 1991 (in FBIS-SOV-91-053): 50–51.

¹⁰¹A. Ladin, "Prepared Statements from the Podium, Honest Talk in the Lobby," *Krasnaya zvezda*, Mar 2, 1991 (in FBIS-SOV-060): 38.

¹⁰²V. Slipchenko, "Major General Slipchenko of the Soviet General Staff Academy Answers Questions During a Working Session Before the Start of the NDU Conference," unpublished report on SASONET, Ft. Leavenworth, KS: March 28, 1991. In a related conversation at the Army War College when asked about the strategic air campaign's success, Maj Gen Slipchenko said "First and foremost was your ability to fly so many sorties per day. Never in our wildest calculations did we believe you could sustain so many sorties logically and overcome pilot fatigue. After winning air superiority... the war became...a war of technology, something Hussein did not have. See Ben Lambeth's *Desert Storm and its Meaning*: 72–73.

Force Structure

Strategic posturing had been the principle that defined how the Soviets generated, positioned, and mobilized forces. As noted previously, the Soviet concept of strategic posture required the deployment of forces in a fully developed TVD. This force possessed the ability of multidirectional fighting, and worked with its Warsaw Pact coalition members. With the internal changes within the Soviet Union, and the demise of the Warsaw Pact, this concept lacked any further validity. With the bulk of the Soviet forces being repositioned, mobilization potential, redeployment, and force structuring took on new meaning in their concept of strategic security.

It was apparent from the beginning of the Gulf War that Allied strategic posturing had impressed the Soviets. Initially, many Soviet officers thought the Allied mission was impossible given the multiethnic makeup of the forces and the distance involved. As the war went on, this opinion changed.¹⁰³ The Soviets cited allied preparation and cooperation of the forces as crucial to the victory. The Soviets' analysis included the preparation of airfields in the region, aircraft capacity, naval and marine employment, logistics pre-positioning, and coalition integration.¹⁰⁴

Under the old system, conscript augmentation to a cadre force marked the Soviet military.¹⁰⁵ The Gulf War implications did not greatly affect the Soviet's concept of readiness. It did, however, heighten their awareness of a professional force. The coalition armies fighting in the Gulf were almost all "professional." The Soviets saw that Allied professionals performed much better than Iraq's conscript force.¹⁰⁶ Many General Staff officers were unanimous in the conclusion that people controlling the technology decided a war's outcome more than the technology itself.¹⁰⁷ General Kutsenko, of the General Staff, expressed this sentiment best in his assessment "more depends on the professional training of the people operating and servicing the equipment than its quality; it is of decisive significance."¹⁰⁸

¹⁰³V. Zhurbenko, "Television Interview," *Tass*, February 26, 1991 in FBIS-SOV-91-038): 11

¹⁰⁴Discussed in several articles. See Bogdanov, S., "The General Staff is Closely Monitoring the Developing Situation," *Krasnaya zvezda*, January 31, 1991 (in FBIS-SOV-91-022): 6, and Kostin, N., "Comments on the Gulf War," *Izvestia*, February 8, 1991 (in FBIS-SOV-91-028): 20.

¹⁰⁵Specific units were designated by readiness category within the military districts. Soviet Studies Research Centre, *The Sustainability of the Soviet Army in Battle*, (Sandhurst, UK: Royal Military Academy, 1986): 164.

¹⁰⁶Buryga interview of General V. Gorbachev: 19.

¹⁰⁷S. Bogdanov, "The General Staff is Closely Monitoring the Developing Situation," *Krasnaya zvezda*, January 31, 1991 (in FBIS-SOV-91-022): 6.

¹⁰⁸N. Kutsenko, "Lessons of Combat Operations," *Izvestia*, February 28, 1991 (in FBIS-SOV-91-042): 41.

With the initial period of war ascending to new importance, the Soviets saw implications for their mobilization planning and force structure. In the Gulf War, the United States and European Allies overcame the theater's distance through extensive logistical support. For the Soviets, that placed a premium on developing a rapid deployment force to project power and protect their vital interests. By building a similar capability, the Russians believed they could prevent local war through deterrence. They began reorganizing their forces into a rapid reaction force.¹⁰⁹

In the roundtable, General Moiseyev expressed concern over the impact of the Gulf War on Soviet force posture and force generation. He emphasized "rectifying support structures" of the services by improving the combat arms through the addition of security measures (electronic warfare, fighter escort, etc.), and by improving the support for maintaining the fighting force while moving it from theater to theater, as well as supplying equipment quickly.¹¹⁰ The General Staff argued that a key aspect of the coalition's success was their ability to transport people and equipment half way around the world through the close coordination of air and sea transport.

Tactics

For the Soviets, tactics pertained to operations and combat actions of operational formations. It was the practice of strategy and doctrine. It identified the techniques used to mass forces, achieve surprise, maintain momentum, and achieve the operational objectives. In terms of this paper, the greatest impact on Soviet tactics arising from their Gulf War "lessons" concerned the actual tools of combat — weapons. More importantly, the Gulf War focused their attention on weapons technology and high-tech research and development, much as Marshal Ogarkov had made ten-years prior to the Gulf War.

Technology, Research, and Development

Commander in Chief of the Air Force, Colonel-General Ye. Shaposhnikov noted in an interview that the Gulf War was giving the General Staff an opportunity to observe and evaluate American airpower.

¹⁰⁹Gelyy Batenin, "How to Overcome the 1941 Syndrome," *New Times* (February 26, 1991): 12-14.

¹¹⁰A. Egorov, "Roundtable: Military Reform and the Ground Troops," *Krasnaia zvezda*, April 18, 1991 (in FBIS-SOV-91-012): 29.

This was the first time they were able to make an assessment under real combat conditions on such an unprecedented scale. He noted much had changed since the Vietnam War, and focused on "air and naval-based cruise missiles, F-15 and F-117A 'Stealth' aircraft, the multipurpose Tornado aircraft, Patriot anti-missile complexes, and the accumulation and processing of information."¹¹¹

Dr. V. Tsygichko, head of Moscow's National Security and Strategic Stability Studies Center admitted at a lecture at Supreme Headquarters Allied Powers Europe on March 5, 1991, that models run by the General Staff before the Gulf War had failed to predict the outcome. Additionally, the models had grossly overestimated the coalition's losses. He blamed this on the modelers not having reliable parameters to assign to the allied weapons. He pointed out their models contained no factors to account for the Iraqi's poor discipline and morale. Finally, he noted the air campaign lasted considerably longer than most Soviet analysts had predicted.¹¹² Of extreme importance was the fact that these models contained algorithms based on their previous notions of the nature of future war. The failure of the models repudiated their previous doctrinal base for predicting what the nature of future war might hold. Marshal Achromeyev supported Dr. Tsygichko's views by affirming the Soviet estimates "were based on classic AirLand Battle doctrine." Increasing the air campaign to 40 days invalidated the projection models. Achromeyev implied the models were based on a central European scenario by stating "The conduct of air operations of such duration against an enemy approximately equal in strength would have been impossible."¹¹³ These excuses show that perhaps this was but one additional short delay on the "Yellow Brick Road."

The General Staff convened another roundtable in mid-March 1991 to evaluate the performance of the Soviet air defense equipment in the Gulf War, and to determine the research and development impacts. Senior officers stifled the formal presentations trying to avoid criticism and contentious issues. Because of this, some of the junior officers attending noted the delegates made most of the interesting and

¹¹¹S. Sidorov, "Interview with Colonel-General Shaposhnikov, Commander in Chief of the Air Force, In the Sky over Iraq," *Krasnaya zvezda*, January 26, 1991 (in FBIS-SOV-91-020): 22-23.

¹¹²Brian J. Collins, "Airpower in the Persian Gulf: Soviet Analysis," (unpublished research paper, CAEE Defense Studies, Supreme Headquarters Allied Powers Europe, February 12, 1992): 12.

¹¹³S. Achromeyev, "Achromeyev Comments on Iraqi Defeat," *Novoye Vremya* No. 10, March 1991 (in JPRS-UMA-91-018): 54.

compelling comments "in the lobby." Among the core issues they thought needed attention was the "lamentable condition" of Soviet military science and defense preparations, and the failure of PVO to provide them with "the most modern systems available." They also commented about their need to replace "obsolete models of weapons that accomplish little, as evidenced by the Gulf War, and should be retired"¹¹⁴

Influenced by the allies' success in the Gulf War, Defense Minister Grachev listed the following seven priority items for continued research and development: highly mobile troops, army aviation, long-range ACMs, C³I systems, space systems, air defense systems, and strategic arms.¹¹⁵ As a result of the General Staff's analysis of the Gulf War, political and military leaders have reached a consensus on maintaining research and development at the expense of procurement as the Russian defense budget shrinks. The Russians believe they cannot "be second best" in stealth and advanced conventional munitions.¹¹⁶ Experts within Russia noted they were 7–10 years behind in ACMs.

Summary

Ben Lambeth talked to the editorial staff of *Voennaia mysль* (Military Thought) in April of 1992. From this discussion he concluded some broad outlines of the High Command's thinking and meaning of Desert Storm. Four recurrent themes emerged that will have continued research and development impact: (1) the broadened role played by conventional airpower in deciding war's outcome; (2) the criticality of good training and operator proficiency in getting the most out of modern weaponry; (3) the disproportionate leverage offered by high-tech weapons as a force multiplier; and (4) the meaning of these and related findings for future Russian defense planning and policy.¹¹⁷

Much occurred to influence Russian military doctrine from the end of the Gulf War to the issuance of their draft doctrine in May 92. The Gulf War was a "significant military experience" for them. It affected their perception of future war, who presents a major danger to them, what is the threat's capability, and how should the Russian forces be postured. However, it is difficult to directly relate cause

¹¹⁴A. Ladin, "Prepared Statements from the Podium, Honest Talk in the Lobby," *Krasnaya zvezda*, Mar 22, 1991 (in FBIS-SOV-060): 38.

¹¹⁵Gaydar, (in FBIS-SOV-92-062): 36.

¹¹⁶Shaposhnikov, (in FBIS-SOV-91-183): 35.

¹¹⁷Lambeth, "Desert Storm and Its Meaning": 43–44.

and effect within the May 1992 Russian Draft Military Doctrine to specific lessons the Russians say they learned from the Gulf War.

Ben Lambeth's analysis of the Soviet view of the Gulf War provides a comprehensive view of the lessons the Russians say they learned from the war, and are evident in May 92 Russian Draft Military Doctrine. According to Lambeth, the Soviets concluded that the nature of modern war changed radically from the concepts of a few years ago. Airpower may not win war by itself, but it had become the decisive force permitting the attainment of victory, while keeping friendly loses to a minimum. The Soviet concept of redundant, overlapping, and integrated air defenses was seriously flawed. "Tanks are an endangered species when the other side enjoys control of the air." Quality beats quantity, but there still has to be enough of it to matter. Coalition warfare works, but it's difficult to do. Soviet concepts of offensive air operations are overdue revision. Top-down centralization remains critical to effective combat operations, but it must be flexible in execution. "Hardened shelters no longer shelter." Stealth is the wave of the future. Ground warfare, as well as air, has undergone a technical revolution. The end of the Cold War rendered Gorbachev's "defensive doctrine" obsolete.¹¹⁸ Mary C. Fitzgerald argues the Soviets viewed Desert Storm as the "paradigm of future war in strategy, operational art, and tactics."¹¹⁹

On February 8, 1989, Colonel-General Moiseyev, first deputy Defense Minister and chief of the USSR Armed Forces General Staff declared his candidacy as a USSR people's deputy from the CPSU. He focused part of his campaign on changing the military doctrinal review process to give greater meaning in the General Staff. In a campaign speech he noted

It appears that we should also revise our attitudes toward work on long-term problems ... But responsibility for the end results [of the General Staff] has been understated. The situation is different now ... Many difficult problems that the troops are encountering today can be traced back, with careful analysis, to our lack of foresight, our shortsightedness ... The new nature of the tasks now being resolved requires the development of

¹¹⁸Ibid.: 69-88. One apocalyptic Soviet correspondent, Pavel Felgengauer of *Nezavisimaya Gazeta*, may have expressed a concern on the minds of many of the General Staff when he said, "The indestructible Red Army, made up for the most part of unprofessional officers and semi-trained conscripts, could hardly manage to put up sustained resistance to the professional NATO armies and modern highly accurate superweaponry. The clash of brute force and reason, a bullfight in essence, would end, like all bullfights, with the moment of truth." Quoted by Stanislav Kondashov in "Political Observer's Notes," *Izvestiya*, January 28, 1991 (in FBIS-SOV-91-021): 15.

¹¹⁹Mary C. Fitzgerald, "Russia's New Military Doctrine," *Defense and International Security* (October, 1992): 43.

creative activeness on the part of all directorates and every official; it requires initiative and inquisitiveness in work.¹²⁰

His comments seemed to possess clear foresight in describing the doctrinal review process following the Gulf War two years later. The following chapter will demonstrate how the new Russian doctrine reflects the pervasive impact of the Gulf War on Russian military thought. The question becomes how the Russians will "follow the Yellow Brick Road" in developing a military doctrine given their economic and political realities.

¹²⁰M. A. Moiseyev, "From Defense Doctrine Positions: Colonel-General M. A. Moiseyev, Candidate USSR People's Deputy Meets Communists From the USSR Armed Forces General Staff," *Krasnaya zvezda*, February 10, 1989 (in FBIS-SOV-89-028): 81.

CHAPTER 4 Emerging Russian Post-Gulf War Military Doctrine

She sprang from her bed and with Toto at her heels ran and opened the door. The little girl gave a cry of amazement as her eyes grew bigger and bigger. "I don't think we're in Kansas anymore, Toto!"

— Frank L. Baum
The Wizard of Oz

The Soviets were forced to respond to many internal and external political, economic, and social disruptions in the late 1980s and early 1990s. One response was to review and revise their military doctrine. The economic decay within the Soviet Union had reached crisis proportions. Democratization severely undermined, and eventually led to, the death of the Communist Party. The Soviets, and then the emergent Russians, were faced with a security dilemma by the civil wars on their borders and within the commonwealth of republics. Ongoing arms reductions and competition within the international community had altered the course and direction of the then Soviet Army. Finally, with the eventual collapse of the Soviet Union, the emerging independent Soviet states found their military doctrine impotent concerning their ability to rationalize military action within the old Soviet military doctrine.

With Russia emerging as the "dominant" independent state, they became the focal point for revising military doctrine. The "crowning blow" may have been the Russians' reaction to the Gulf War in light of all the other internal and external changes that were occurring. The Gulf War showed that planning for a counterattack, as the old Gorbachev military doctrine's idea of defensive doctrine dictated, required the Soviets to react instead of acting. To the Russians, this was an unacceptable form of action in an era of high-tech weapons.¹²¹

¹²¹Major General V. I. Slipchenko, of the General Staff Academy, "Impending Changes as a Result of Reform in Plans for Use of the Soviet Armed Forces," (Research Paper) in Thomas, Timothy L., "The Soviet Military on 'Desert Storm': Redefining Doctrine?," *Journal of Soviet Military Studies* (December 1991): 594.

In May 1992, the Russian High Command released a draft of their new military doctrine by publishing it in their foremost theoretical journal of the Russian Armed Forces, *Voennaya mysl* (Military Thought).¹²² In November 1993, the Russians released the final approved version of the new military doc-

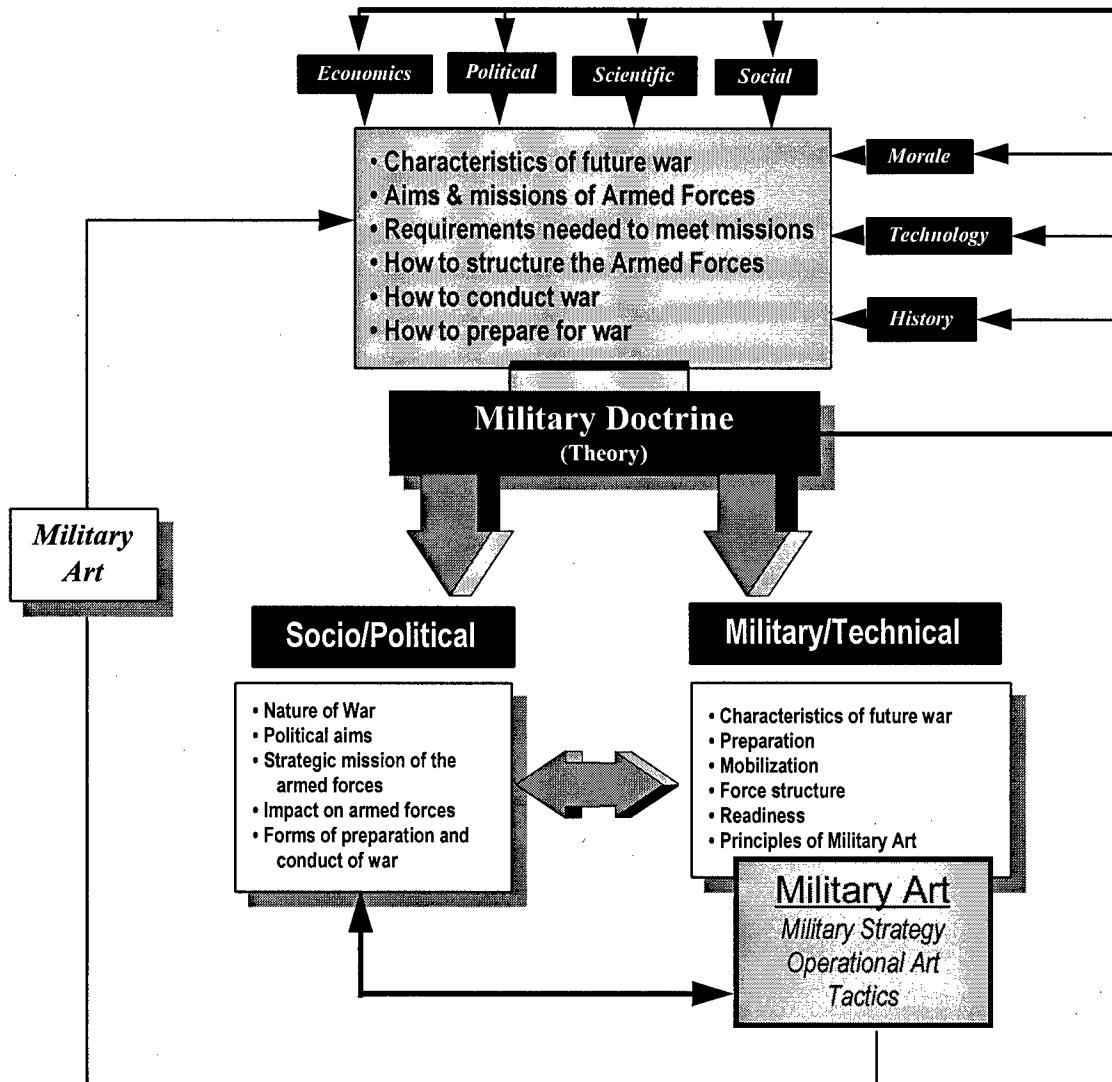


Figure 1. Soviet/Russian Military Doctrine Formulation

trine in *Rossiyskiye Vesti*, in a text entitled “The Basic Provisions of the Military Doctrine of the Russian Federation: Russia’s Military Doctrine.”¹²³ Figure 1 graphically displays the Russian’s military doctrine

¹²²Mary C. Fitzgerald, "Russia's New Military Doctrine," *Military Intelligence* (October-December 1992): 6

¹²³Editorial Special Edition, "Basic Provisions of the Military Doctrine of the Russian Federation: Russia's Military Doctrine," (Here after referred to as Russian Draft Military Doctrine) *Rossiyskiye Vesti*, November 18, 1992 (in FBIS-SOV-92-222-S): 1-11. According to C. J. Dick of the Soviet Studies Research Center at the Royal Military Academy, Sandhurst UK, as of 1993 the Russian Congress of People's Deputies had yet to debate the initial military

formulation process as described in Chapter 2. It shows how doctrine emerges from the strategy process.

Doctrine evolves as a result of all the various internal and external inputs to answer the strategy questions about future war's characteristics and the armed forces response to them. Military doctrine defines the political essence of modern war through its socio/political component by defining the nature of future war and the political aims of the state. The military/technical component characterizes the military threat and the type of struggle to be fought. Together, these components identify how the state prepares for war, and what structure the armed forces need to assume. They also provide collective "wisdom" in forming the principles of military art that defines how the armed forces will respond to future war. As the illustration shows, all the various outputs of this system become inputs that alter how the state perceives future war. The process of formulating military doctrine is a dynamic one that constantly evolves the resultant doctrine. The Russian response to Desert Storm specifically altered their view of the characteristics, nature, conduct, and preparation for future war. The defensive doctrine they had inherited from the Soviets was clearly dysfunctional in terms of their altered perceptions.

The new draft military doctrine established that the fundamental goal of security policy of the Russian Federation was to prevent war. It also established a system of views regarding the organization of the armed forces, the country's defense preparations, the countermeasures to threats to the state's military security, and the utilization of the Armed Forces of the Russian Federation. As in prior military doctrines of the former Soviet Union, the new doctrine said that carrying out the provisions of military doctrine is achieved by means of the "coordinated measures of a political, economic, legal, and military nature with the participation of all organs of state power and administration, public organizations, and citizens of the

doctrine draft. Internal Russian affairs had consumed the work of the Russian legislature. Both President Yeltsin and Defense Minister Grachev had appealed to the Congress of People's Deputies to move forward on adoption of the military doctrine because the military needed legislative sanction to proceed with the organizational development of the armed forces based on the precepts of the politically approved doctrine. As yet, that approval has not occurred. As a consequence, the Defense minister is proceeding forward as if the congress had approved the legislation. The Armed Forces are restructuring from conscript to contract services. The Army is building a strong commitment to maintaining a presence in the former republics and the new Russian Federation whenever possible. The Armed Forces have already begun reorganization of mobile forces. Committing funds for R&D and weapons technology is more difficult without the approval and support of the Congress of Deputies. For a more detailed analysis, see C. J. Dick, "Russia's Draft Military Doctrine, 10 Months On," *Soviet Studies Research Centre*, (April 1993).

Russia Federation.¹²⁴ Military doctrine within the Russian Federation derived its force of law from the agreement and approval of the state's legislative body, the Congress of People's Deputies.

The Threat

The draft military doctrine listed several scenarios that future war might take. The primary emphasis was meeting any threat endangering their sovereignty or territory — whether as part of the Confederation of Independent States, or on its own. It also noted that hostilities might result from economic or political pressure from a major power.¹²⁵ In the past, figuring out the character of a threat was normally a function of Marxist-Leninist ideology within the socio-political dimension of military doctrine. The old doctrinal standard became labeling the threat as imperialist, capitalist, or fascist.

Although not specifically identifying potential enemies, the draft doctrine listed several factors that could lead to potential conflict.¹²⁶ It described these factors as possible sources of "military danger."¹²⁷ First, the Russians' viewed NATO's military power and the American presence in Europe and the Far East as its greatest potential danger.¹²⁸ Second, the doctrine examined the anxiety over the rise of global or regional powers, especially Germany, Japan, Iran, and Turkey. Third, the doctrine noted the pressure exerted by the leverage that Western economics may create against the Russian government. Last, the doctrine echoed the concern over America exerting military power beyond its borders to further American foreign policy aims.¹²⁹

The four factors listed above described conditions that could lead to conflict. The doctrine also described two direct threats to Russia. First was the introduction of foreign troops into any of its adjacent

¹²⁴Russian Draft Military Doctrine: 1.

¹²⁵Russian Draft Military Doctrine: 2-3.

¹²⁶*Ibid.*

¹²⁷The draft doctrine defines "military danger" as an immediate threat of direct aggression against the Russian Federation. It describes the danger in terms of social, political, territorial, religious, national-ethnic, and other conflicts. The military danger derives from the desire of a number of states and political forces resolving their problems through armed struggle. Armed conflict from aggressive nationalism and religious intolerance are described as posing "a special danger." A military danger becomes a "military threat" when there is an immediate danger of war. See Russian Draft Military Doctrine: 2-3.

¹²⁸M. Moiseyev, "From Defensive Doctrine Positions," *Krasnaya Zvezda*, February 10, 1989 (in FBIS-SOV-89-028): 78.

¹²⁹Natalie Gross, "Reflections on Russia's New Military Doctrine, *Jane's Intelligence Review* (August 1992): 339.

states — a concept similar to the stereotypical direct threat to “*Rodina*.¹³⁰ Second, was the buildup of air, naval, and ground forces near the Russian borders.¹³¹

View of Future War

The most probable type of conflict according to the draft doctrine was local wars. Large-scale conventional war could occur when local hostilities directed against the Russian Federation, the CIS, or other states close to Russia’s borders, escalated into a fully fledged coalition war. This evolution to conventional warfare followed a fairly prolonged threat period and general mobilization.¹³²

According to this scenario, a large-scale intervention by the West against the CIS or Russia could occur with either long or short warning. The hostility occurred in probably two phases. First, the enemy struck with combined naval and air offensive strikes at important economic and military targets with PGMs and electronic jamming. These attacks disabled Russian command centers, and prevented reserve mobilization and force deployment. The opening attacks attempted to force an early withdrawal of Russia’s allies and least reliable coalition partners from the war. The second phase of the war was an intense ground campaign conducted under the cover of powerful and decisive air forces. In many ways, the new military doctrine was a rehash of what it took to win the Great Patriotic War — repulse of a massive conventional invasion requiring full mobilization of all the state’s resources.

The Gulf War amplified the need for the Russians to redefine aggression and make adjustments to their fundamental ideas about operational art. When threatened, or when war was imminent, the draft doctrine listed the primary tasks to safe guard military security. For the military they included mobilizing and equipping forces to repulse and defeat an aggressor.¹³³

¹³⁰Marshal Sergei F. Akhromeyev noted as early as March 1991, that “...a military threat to the Soviet Union no longer exists, but a military *danger* does.” This terminology (according to Timothy Thomas) indicated the Soviet concern that border and national issues could inadvertently draw NATO into Soviet affairs. According to Thomas, later Defense Minister Yazov echoed these concerns about military danger instead of military threat. See Thomas, Timothy L., “The Soviet Military on ‘Desert Storm’: Redefining Doctrine?,” *Journal of Soviet Military Studies* (December 1991): 596. “Rodinu” or the concept of the “Motherland” was a Soviet way of expressing extreme patriotism. For airmen, this was marked by employing the *taran*. After exhausting his ammunition, a Soviet pilot would aim his aircraft into the enemy. More than 200 instances of the *taran* were documented during *The Great Patriotic War*. See Von Hardesty, *Red Phoenix: The Rise of Soviet Air Power 1941 – 1945*, (Washington, DC: Smithsonian Institution Press, 1982): 28–30.

¹³¹Russian Draft Military Doctrine: 2–3.

¹³²Ibid.: 5–6.

¹³³Ibid.: 5.

Force Structure and Priorities

The new doctrine contained guidance for the composition and priorities of Russian Armed Forces. First, it specified enough forces in permanent readiness in the various TVDs to deter and repel local aggression. Second, the doctrine identified mobile reserves capable of rapid response and deployment to repel mid-level aggression when combined with the ready forces. Lastly, it required strategic reserves, formed during the threat period and during a war, to conduct large-scale combat actions.¹³⁴ Priority of all forces was to develop and exploit “the emerging high precision, mobile, highly survivable, long-range, stand-off weapons.” The Russian’s second priority was also directly linked to the military-technical aspect of military doctrine. The new doctrine specified “...arms, equipment, and C³I systems whose *qualities* allow a reduced *quantity* of arms.” The doctrine called for reducing serial production while maintaining research, development, and production capabilities that rapidly surge the emerging technologies.¹³⁵

The new military doctrine saw the role of the Russian armed forces as defeating missile attacks, protecting strategic targets such as administration and industrial infrastructure, and carrying out retaliatory attacks.¹³⁶ Defeating this surprise aviation-missile attack was a new strategic concept to the Russians. They saw Desert Storm as new type of combat — the electronic fire operation — consisting of surprise, massed and prolonged missile, aerospace, electronic, and naval strikes conducted for several days or weeks. Their purpose was to deny the enemy the ability to continue the war and reconstitute its forces by disrupting the military – economic capability and ensuring victory in political and economic arenas. Unlike massed ground warfare, seizure and occupation of land were not objectives of the attacks..

Differences With Pre-Gulf War Military Doctrine

C. J. Dick points out that the new draft military doctrine was drawn up by a General Staff “who had not undergone a revolution of the mind and who, far from being in tune with Gorbachevian ‘new thinking’ were still unreconstructed Cold War warriors paying lip service to *perestroika* while trying to

¹³⁴Russian Draft Military Doctrine: 7–9.

¹³⁵Mary C. Fitzgerald, “Russia’s New Military Doctrine,” *Defense and International Security* (October, 1992): 45.

¹³⁶Russian Draft Military Doctrine: 5–6.

preserve the old system as far as they could.”¹³⁷ He saw the new military doctrine divorced from government policy and reality. In many ways, he cast the new doctrine much like the old. It viewed the world through distorted ideological prisms — hostile to the West, if not explicitly, at least implicitly. Even after all the internal political, economic, ideological, and social strife in the former Soviet Union over the past four years, the new military doctrine persisted in worst case analysis. According to Dick, the Russian military failed to recognize this approach was a major cause of the collapse of the Soviet economy in the first place.

In a marked departure from doctrinal statements from the pre-Gulf War Gorbachev era, the new doctrine made no provision for restricting the scale or depth of the Russian army’s counteroffensive. Additionally, there were no explicit references to defensive strategy or defensive operations. In many ways, the new military doctrine was reminiscent of Brezhnev doctrine, although a high-tech version. Furthermore, the Russians dropped their commitments to no-first use of military force.

The new doctrine is significantly different from that of the Gorbachev era in several other ways. The “old” doctrine’s main wartime emphasis, as discussed in Chapter 2, was war prevention by repelling aggression. The new doctrine specifies optimizing forces for all possible wars and combat missions.¹³⁸ The new doctrine said that the main objective was

to localize a seat of tension and terminate military operations at the earliest possible stage in the interests of creating preconditions … on conditions that accords with the interests of the Russian Federation … the forms, methods and means of conducting combat operations that best accord with the prevailing situation and ensure that the initiative is seized and the aggressor defeated must be chosen.¹³⁹

“Reasonable sufficiency” under Gorbachev’s military doctrine meant conducting no large-scale conventional operations. Under the new doctrine the conventional sufficiency provision was similar; however, it provided for additional deployments to make large-scale conventional operations possible. This clearly rejected Gorbachev’s prohibition against large-scale conventional offensives.¹⁴⁰ The Gorbachev military

¹³⁷Charles J. Dick, “Initial Thoughts on Russia’s Draft Military Doctrine” *Journal of Soviet Military Studies* (December 1992): 560.

¹³⁸Ibid.: 6–8.

¹³⁹Ibid.: 8.

¹⁴⁰FitzGerald, “Russia’s New Military Doctrine:” 45–46.

doctrine stressed repulsing an aggressor and forming subsequent defensive actions based on the nature of the enemy's operations. The new military doctrine amplified an old theme — destruction of the enemy.

The new military doctrine viewed nuclear war as an extension of large-scale conventional operations. Strikes by conventional "smart" weapons against Russia's nuclear forces represented nuclear escalation thresholds for Russian planners. The new doctrine saw attacks against command and control facilities, chemical and biological weapon storage depots, nuclear energy and research facilities, and the nuclear forces themselves the same as releasing weapons of mass destruction, inviting retaliation in kind.¹⁴¹ This concept significantly departed from a major tenet of Gorbachev doctrine. The old doctrine held that nuclear war *will* be catastrophic; the new doctrine refined this assumption to *might* be catastrophic. The old doctrine also discussed nuclear war as global in nature, with limiting it to specific regions as almost impossible. In the new doctrine, however, both concepts were missing. In the new doctrine, Russia refuted their commitment to no first-use of nuclear weapons, and saw limited regional nuclear war as a possibility.¹⁴²

Conclusions

The lessons of the Gulf are clear in the doctrinal statements. The new doctrine expects Russian commanders to balance troop training in both defensive and offensive operations. It expects the Russian army to hold the country's vital areas, restore the status quo along its borders, and eventually rout the enemy. Gorbachev's earlier military doctrine espoused more modest terms of cessation to hostilities. The pre-Gulf War doctrine specifically addressed partial victory, enemy withdrawal, and peace restoration. The new doctrine's resurrected idea of "total victory" incorporates the traditional Soviet thinking that prevailed well into the late 1980s.

¹⁴¹Although this concept may appear to be new, the idea has been around for a long time. This author was the "Soviet" logistian on the Air Force CHECKMATE "Red Team" in the mid-1980s. At that time, the CHECKMATE "Red NATO Brief" discussed a Soviet escalation concept similar to that written in the new draft doctrine. The CHECKMATE analysis was that the Soviets would escalate to nuclear weapons based on the value of a target struck. For example, a large-scale conventional air attack against nuclear storage sites may receive a Soviet strategic response because the targets struck had strategic value even though the characterization of the NATO attack was tactical-conventional. Using the same logic, a NATO nuclear response against a purely tactical or operational valued target might not have resulted in a Soviet nuclear response. The inclusion of this provision in the new Russian doctrine seems to validate the earlier analysis.

¹⁴²Russian Draft Military Doctrine: 2.

Most important of all, the new doctrine stressed the decisive importance of the initial period of war.¹⁴³ In Desert Storm, the Russians saw the initial period consisting of air and naval strikes aimed at disrupting enemy strategic deployments, disorganizing civilian and military C³I, and collapsing any enemy coalition. The Russian's new doctrine specifies the destruction of economic and military targets by ACMs simultaneously or preemptively with electronic warfare.¹⁴⁴

The new doctrine assigns weapons development priorities to the systems that most impressed the Russians during Desert Storm: advanced conventional weapons (ACM), electronic warfare, and C³I.¹⁴⁵ Of most significance is the Russian's evaluation that ACMs could accomplish missions only thought possible by nuclear weapons. They also see electronic combat as equivalent to "fire strikes" in combat effectiveness. Additionally, the Russians describe advanced C³I systems as just as important as the "entire correlation of forces and means." To the Russians, superiority in EW and C³I are necessary and sufficient to ensure victory in warfare.¹⁴⁶ Both the Gorbachev and the new military doctrine stress the need to get high technology weapons and to maintain a mass mobilization capability of the economy and the population. Neither seem to accept the social, economic, and political reality that might stand in the military's way of carrying out the doctrine. C. J. Dick amply cites the Russian General Staff for living in an "Alice in Wonderland world, reinforced by its assertion that force reductions can only take place when the right military-technical, economic, and social conditions are created."¹⁴⁷ C. J. Dick got the idea right, but he uses the wrong children's story as the analogy.

CHAPTER 5 Implications for U.S. Strategists

*"My darling child!" cried Aunt Em; "where in the world did you come from?"
"From the Land of Oz," said Dorothy gravely. "And here is Toto, too. And oh, Aunt Em! I'm so glad to be at home again!"*

— Frank L. Baum
The Wizard of Oz

¹⁴³Russian Draft Military Doctrine: 6.

¹⁴⁴Ibid.

¹⁴⁵Ibid.: 9.

¹⁴⁶FitzGerald, "Russia's New Military Doctrine": 46.

¹⁴⁷C. J. Dick, "Initial Thoughts": 562.

Since the early 1980s, such prominent military thinkers as Marshal Ogarkov¹⁴⁸ argued that emerging technologies were generating a new revolution in military affairs.¹⁴⁹ The Russian response to Desert Storm, and their reformed military doctrine, seems to confirm Marshal Ogarkov's predictions. As Mary FitzGerald asserts, a new paradigm for future war, strategy, operational art, and tactics now exists.

Briefly, the new doctrine:

1. Reverts from defensive to an offensive preemptive position.
2. Reverts from no nuclear first use to a possibility of nuclear escalation.
3. Guarantees its twenty-five million ethnic Russians living in former Soviet states protection from any kind of retaliation.
4. Emphasizes the importance of military advancement in C⁴I, smart weapons, and increased mobility.
5. Emphasizes strategic non-nuclear deterrent forces.

Several factors added to the forces of the 1980s driving Russian military doctrine — the explosion of nationalism is the face of Communism's collapse, the diminished role of the military in developing policy, and Russian loss in controlling the direction of the Commonwealth of Independent States. More than just a response to social, political, and economic changes, the new doctrine represents the emergence of the Russian military as a policy developer in the new state. The Russians changed their doctrine to reflect new paradigms. They saw the Gulf War as the ideal of a new form of war, where surprise and the use of high-tech systems were decisive. More importantly, they saw the initial period of war as not just a preparatory phase, but as perhaps the *only* phase. They saw their old military doctrine as an insufficient theoretical base to build on the Desert Storm experience. They changed their doctrine to address *their own* lessons of the Gulf War.

¹⁴⁸Amidst the domestic stagnation of the Brezhnev years and the resurgence of American strength, Ogarkov evinced deep concern about the Soviet's ability to keep pace with the "truly revolutionary transformation of military affairs now occurring as a result of the development of thermonuclear weapons, the rapid evolution of electronics and weapons based on new physical principles, as well as the wide, qualitative improvements in conventional weaponry." Marshal of the Soviet Union N. V. Ogarkov, "Vsegda v gotovnosti k zashchite Otechestva (Always in Readiness)(Moscow: Voenizdat, 1982): p. 31 in Kass, Ilana and Fred Clark Boli, "The Soviet Military: Back to the Future?," *Journal of Soviet Military Studies* (September 1990): 392.

¹⁴⁹N. Ogarkov, "Guarding Peaceful Labor," *Kommunist* No. 10, (Moscow: in JPRS 79074): 91-92.

The lines between strategy, operational art, and tactics, as discussed in Chapter 2, no longer fit the war paradigm. The paradigm had to change because they saw that deep, first strikes with technologically superior weapons could achieve strategic objectives quickly, with low cost. But in arriving at these conclusions, the Russians developed a revisionist military doctrine that in many ways "returned them home" to their earlier ideas about the preeminence of the offense. The new doctrine's disconnect between implementation costs of this strategy and Russia's political, social, and economic reality will cause the Russian military severe problems. The Russians represent doctrine as the template for developing military force structure in response to the doctrinal definition of future war. The Gulf War clearly defined future war; however, the Russian military's desire to return to the past shows perhaps they "learned no lessons" from the Gulf War.

The Russians see their security threats in a different light from the Soviets. They say they need to ensure their security and protect their interests on the world scene following "the breakup of the former Soviet Union, the loss of their former allies, the emergence of new hotbeds of military tensions along their southern borders, and the deterioration of the internal political and social fabric" of their country.¹⁵⁰ They define the United States and NATO in terms of a "danger," but not a "threat." When asked if world imperialism was the current enemy, Defense Minister Grachev replied "...definitely not ... terrorism, nationalism, and religious animosity have replaced it."¹⁵¹ Ben Lambeth is correct when he points out that the fate of the Russian Air Force, and in many ways the entire Russian military, is "inseparably tied to the political and economic fate of post-Soviet Russia."¹⁵²

During the final days of the Soviet Union, defense outlays for weapons and associated equipment fell more than 23 percent, or by 2.3 million rubles from the 1990 levels. In 1992, about 70 percent of the Russian defense budget was redirected into the social sector. Additionally, the Russian politicians programmed almost 70 percent of the remaining defense budget for construction of military family housing to

¹⁵⁰Aleksandr Stukalin, "Armed Forces Viewed After One Year in Existence," *Kommersant-Daily*, May 8, 1993 (in FBIS-SOV-93-088): 36-38.

¹⁵¹Aleksandra Nadzharov, "Defense Minister Grachev Interviewed — Russian Army Problem," *Nezavisimaya Gazeta*, June 8, 1993 (in FBIS-SOV-93-109): 44.

¹⁵²Benjamin S. Lambeth, "Red Phoenix Redux: The Fitful Emergence of a New Russian Air Force," (RAND Draft, RAND Corporation, Santa Monica, CA., March 1994): x.

solve critical housing shortages and social programs for badly deprived military personnel. By late 1993, the promised military funding allocations were more than *three trillion rubles in arrears*. To compensate for declining investment in military equipment, the Russian military bartered first line arms for capital to augment their declining operations and maintenance costs.¹⁵³ Dr. Jacob Kipp pointed out that the Russian military was using many of the arms sales and barters to pay for the cost of their demobilization.¹⁵⁴ Yet, in almost the same breath, the Defense Minister said the Russian Army would "eventually have the most advanced weapons."¹⁵⁵ The economic crisis compelled them to cut their military force structure considerably, to as low as 1.5 million.¹⁵⁶ To this author, it seems a long way from bartering for operations and maintenance funds to military superpower status.

In the new military doctrine, the General Staff all but ignores the political instability from within, and prepares to fight an air-space war against a major adversary. To many military and civilian leaders, this represents Russia's clearest chance at maintaining superpower status. In the near-term, they will rely on countering the U.S. domination of air-space technology — cruise missiles, space sensors, stealth, etc. For the long-term, they plan to build the infrastructure capable of producing the advanced technologies they need for the Russian armed forces. Somewhere in between is what Mary Fitzgerald calls the 'transition period,' with its reliance on limited nuclear warfighting to deter and defeat worse-case threats. Given the Russian analysis from the Gulf War that they are behind the U.S. in weapons technology, their new position on nuclear first use makes sense. The revolution in military science and weapons technology meant that the Russian Federation would no longer hold their own in a conventional conflict with the U.S. What better way to avert military disaster than to convince their adversary that nuclear weapons would be used from the very outbreak of war? This tactic only provides protection in the near-term, and does not

¹⁵³Ibid.: 28-32.

¹⁵⁴An interesting observation by Dr. Kipp pertains to the impact of the arms sales on the overall Russian economy. Since the industrial plant costs were already accrued (sunk costs), and with labor costs also very low, the military sales were actually making money and stimulating the economy. Although a central theme of this paper's thesis is that the Russian economy will have a deleterious effect on the Russian military, Dr. Kipp's reasoning might at first appear to counter that thesis. It might be interesting to consider how much of the Russian military the politicians will be willing to sell for this temporary economic stimulation. It is this author's opinion that the Russians will not "mortgage the state" at the expense of the military. Author's interview with Dr. Jacob Kipp, March 21, 1994.

¹⁵⁵Aleksandra Nadzharov, "Defense Minister Grachev Interviewed," (in FBIS-SOV-93-109): 47.

¹⁵⁶A. Zarayelyan, "Commentator Views Russian Army Anniversary," *Moscow Ostankino Television First Channel*, May 7, 1993 (in FBIS-SOV-93-088): 37.

solve Russia's other military technology problems.¹⁵⁷ In short, this threat of a return to "massive retaliation" by the Russians may have a healthy component of deception designed to delay the outbreak of a conflict until Russia masters the new advances in warfare.

According to Dr. Andrei Kokoshin, the civilian deputy defense minister in charge of the VPK (Russia's industrial-military complex), the new doctrine focuses the research and development efforts to create a "scientific-technical policy in critical technologies."¹⁵⁸ The new doctrine reduces serial production, but maintains the R&D and production capacity to rapidly surge the new technology weapons when required. This allows the R&D effort to 'hover,' so that the defense industry can leap over a generation of weapons by focusing on prototypes. If the Gulf War should have 'taught' the Russians anything it was that war in the future will be short and decisive. Future war would have a fairly short notice. Even the five month buildup during Desert Shield was fairly rapid given the amount of material and personnel moved into a theater, and then re-deployed once they arrived. The reliance on 'hovering' assumes that Russia will have sufficient strategic warning to change the prototypes and hovered technology into weapons for employment on tomorrow's future battlefield. The timing of future war may leave the Russian no time to turn technologic potential into weapons reality.¹⁵⁹ It is one thing to possess the R&D, it is another matter to turn that into weapons production. Nowhere in the Russian, or former Soviet, experience is there an experience base that would support this research – production concept given a short notice threat scenario.

In discussing Soviet/Russian military doctrine, I have emphasized the close overlapping of the political-social and the military-technical means of setting up the doctrine. At times it became difficult to discuss military aspects of the doctrine without discussing the political structure from which it derived.

¹⁵⁷Mary C. Fitzgerald, Hudson Institute, Washington, DC., interview with author, March 24, 1994.

¹⁵⁸_____, "Russia's Vision of Air-Space War," *Air Force Magazine*, (December 1993):

¹⁵⁹During the mid-1980s, this author participated in several industrial mobilizations forums with top U.S. scientists and industrialists. Several of these discussions were conducted at the Naval War College during annual GLOBAL WARGAME and at the National Defense University. The main problem with industrial mobilization and surge was 'rampup.' For example, to change from peacetime production of one type of U.S. missile to its wartime surge requirements took about 18 months. Certain technologies (computer chips, optics, composite materials, etc.) tend to be the pacing items in the production hierarchy. The problem was not economic. No amount of money could produce some of the subcomponents any faster than they were being produced. Certainly, new production facilities might be built and additional technicians hired. But the lead time for the capital improvements and training might add four to five years on the production schedule. This surge delay was for a weapon system that was in the U.S. serial production pipeline. To go from no production to surge, when all that was available was a prototype or shelved technology would certainly take considerably longer.

The new doctrine still implies that the political-social means give the military doctrine form; however, it completely ignores political means for preventing war. It never mentions crisis management or war termination. As in the Great Patriotic War, only destruction of the enemy and victory is possible when armed force is used to carry out the will of the state. The force structure needed to station forces forward to protect Russia's borders and the capital expenditure for high tech weapons should cause concern to a country trying to rebuild its economy. To carry out this new military doctrine, Russia will need to spend on the military as they did before, with the same possible economic disaster repeated.

In the new Russian military lexicon, the idea of "geopolitics" replaces that of the domination of the political-social component of military doctrine. This amplifies the Russian's primary threat's focus nearer to their own borders. Aggression from former Soviet states and within the Russian autonomous regions take on added importance. Military threats from new directions forced the Russian General Staff to form an echeloned defense with mobile forces and strategic reserves forming the covering force.

Perhaps even more perplexing, is that the new military doctrine identifies factors beyond what were normally discussed in the former Soviet Union's military doctrine. The new doctrine's identification of rights of Russian citizens in foreign states, external political pressure, and economic pressure as an excuse for war is most troubling.¹⁶⁰ In February 1994, President Yeltsin made a major address addressing Russian security.¹⁶¹ In that address the president called Russia the 'guarantor of stability' throughout the former Soviet Union, and said that the fate of ethnic Russians living in neighboring states was "our national concern ...when it comes to violations of the lawful rights of Russian people, this is not the exclusive internal affair of some country, but also our national affair, an affair of our state." He warned East European countries not to join NATO without Russia — that "Russia is not a guest in Europe, she is a full-fledged participant." Further, the president noted that Russia's foreign policy was based on promoting Russia's own national interests. Surely, Russia's neighbors will be most worried about these ill-defined rights and the use of military force.

¹⁶⁰Draft Russian Military Doctrine: 2-3.

¹⁶¹Fred Hiatt, "Yeltsin Promises Assertive Russia," *The Washington Post*, February 25, 1994: 1.

Everywhere one looks in Russia today, the military is implementing ambitious new plans to reshape their forces. Clearly, a good deal of this restructuring was forced on the Russian military by economics and the demise of the Soviet Union. In many cases the final force structure was determined by what the Russians could afford, not what their new military doctrine advocated. The Russian Air Force is a case in point.¹⁶² The new structure makes the once powerful Air Defense Forces extinct, with their combat elements absorbed by the Russian Air Force. The surface-to-air units of the Defense Forces will go to the Ground Forces. The independent air armies of the Supreme High Command are restructured into Territorial Commands, where the frontal aviation forces will also reside. This reorganization fractures the Russian aerospace forces vertically and horizontally at the exact time that their new doctrine espouses that they learned so much about aerospace power from the Gulf War. With the new doctrine focused on threats from the “new abroad,”¹⁶³ the army mobile forces emerged as preeminent. In many ways, the Russians reverted to a military functional structure based on stereotypical operational art. The Russian military analysis of the Gulf War recognized that Western aerospace forces were the primary threat to Russian joint combat operations. Even so, practical Russian airpower theory plays down its independent role in combat operations and emphasizes aerospace support of combat ground operations. Regardless, then, of the emerging technology to support aerospace forces, Russian aerospace power will remain fragmented.

Clearly the new doctrine gives the Russian military exactly the theoretical base they always wanted. By 1991, the Russian military had become paralyzed, as many other “former Soviet” institutions. The new thinking under Gorbachev led to radical changes in security policy that were increasingly untenable. Since 1987, the Ministry of Defense was subverting and resisting Gorbachev’s changes to a defensive posture. In effect, the progressive dissolution of political controls over the military emancipated the General Staff to act, first covertly, then openly, in revising doctrine to its former offensive high. As the Communist Party control atrophied, the General Staff increasingly expanded their influence over the politicians. The General Staff elevated their standing with President Yeltsin by putting down the “White House” revolt this past autumn. The new doctrine reflects Colonel-General Rodionov’s opposition to

¹⁶²Brian Collins, “Russia Fragments Its Airpower,” *Air Force Magazine*, (February 1994): 62–65.

¹⁶³“Near abroad” is a term that more and more Russians apply to the ex-Soviet nations on Russia’s rim.

Russia's first doctrinal draft refuting the "no nuclear first-use" provision, eliminating defensive sufficiency, and defining the nature of future. All these are indicators of the Russian military's rise in political stature and control. The impact this will have on the Russian military is to politicize it. Rather than accept tenets of doctrine passed to it from its political masters, the Russian military will form its own doctrinal ideas and pass them to the politicians for approval. This was exactly the process followed in drafting the existing new doctrine. More importantly, the success of Colonel-General Rodionov in altering the scope of the draft doctrine shows the level of the military's politicization process. He successfully carried the new doctrine from a defensive posture to one with an offensive emphasis. He successfully repudiated the no nuclear first use option. Rodionov successfully altered the new doctrine into a more provocative and revisionist view. The Russian military is now a developer of doctrine, not just an implementor as in the past. The emergence of an offensively structured doctrine dramatically displays the commitment Yeltsin is willing to make to the military.

Today, the pressing demands of military housing and social crisis within their forces preoccupy the Russian military. Force modernization, training and tactics, and other mission-related concerns are on the back-burner. Clearly, the new military doctrine shows that the Russian General Staff followed Dorothy down the road to Oz. They became excessively impressed and concerned about the technological "Wizard" unleashed during Desert Storm. While preoccupied with an outward look, they neglected to look inward at the contribution the former Soviet military made to the collapse of the Soviet Union and the Warsaw Pact. In forming their military doctrine they paid no attention to the "man behind the screen." In essence, they created a military doctrine lacking reality. The new doctrine, in many respects, is just as repressive as the old doctrines. Any analyst reading the new military doctrine must wonder was any lesson learned from the collapse of the USSR, the Warsaw Pact, and the Russian economy? It seems to this writer the former Soviet population rejected the old military's perception of the threat and the requirements for defense; but, the Russian Federation General Staff seems determined to find the Emerald City. At a time when Russia is seeking help from the West to stimulate their economy and social structure, the General Staff still sees the U.S. and NATO as the enemy. One wonders about the Russian General Staff's grasp of reality — Russia's status in the world, the condition of the CIS, the domestic situation. A close reading of

the Russian Federation's draft military doctrine shows there is a clear danger of Russian military policy moving divergently from foreign and domestic policies.

Bibliography

Primary Sources

Books

Koslov, S. N., *The Officer's Handbook: A Soviet View*, translated by the DGIS, Secretary of State, Government of Canada, (Washington, DC: U. S. Government Printing Office), 1971.

Kozhevnikov, M. N., *The Command and Staff of the Soviet Army Air Force in the Great Patriotic War 1941 – 1945*, translated by the U. S. Air Force, (Washington, DC: U. S. Government Printing Office), 1977.

Ogarkov, N., *The Soviet Version of Military Strategy*, (Bolling AFB, DC: Air Force Intelligence Service), 1980.

Sushko, N. Y., *Methodological Problems of Military Theory and Practice*, translated by the U. S. Air Force, (Washington, DC: U. S. Government Printing Office), 1968.

Sokolov, Sergey, *Main Front: Soviet Leaders Look Back on World War II*, (London, UK.: Brassey's Defense Publishers), 1987.

Sokolovskii, V. D., *Soviet Military Strategy*, translated by Herbert Dinerstein, Leon Gouré, and Thomas Wolfe, (Englewood Cliffs, NJ: Prentice-Hall), 1963.

Soviet Studies Research Centre, *The Sustainability of the Soviet Army in Battle*, (Sandhurst, UK: Royal Military Academy), 1986.

Wardak, Ghulam D., *The Voroshilov Lectures: Material from the Soviet General Staff Academy*, Vol. I and II, ed. Graham H. Turbiville, Jr., (Washington, DC.: National Defense University Press), 1989.

Official Publications

U.S. Army, *Field Manual: Soviet Operations — Soviet Operational Doctrine at Divisional Level and Above*, (Carlisle, PA.: Army War College Press), 1985.

_____, *Soviet Armed Forces*, (Carlisle, PA.: Army War College Press), 1988.

_____, *Field Manual (FM) 100-2-1, The Soviet Army: Operations and Tactics (Final Draft)*, (Fort Leavenworth, KS: U. S. Army Combined Arms Center), 18 June 1990.

Journals and Magazine Articles

Achromeyev, S. (Marshal of the Soviet Union), "Achromeyev Comments on Iraqi Defeat," *Novoye Vremya* No. 10, March 1991 (in JPRS-UMA-91-018).

Afanasyev, V., "Journalists Examine Situation in Baghdad," *Sovetskaya Rossiya*, December 28, 1990 (in FBIS-SOV-91-010): 11-12.

Alekseyev, E., "Interview with Major General Anatoliy V. Bolyatko, Head of USSR-Canada Joint Bilateral Military Group: Reinforcing Security Together," *Trud*, May 15, 1991 (in JPRS-UMA-91-015): 68.

Andriyenko, V. N., "From Defense to Counteroffense," *Military Thought* (December 1988): 24-41.

Badurkin, V., "Deputy Chief of Operational-Strategic Research Center, Lieutenant General V. Shtepa, Interviewed," *Trud*, April 2, 1991 (in JPRS-UMA-91-015): 66-68.

Bakurkiy, Viktor and Vladimir Ilin, "Persian Gulf Air War," *Kryla Rodiny*, December 1991 (in JPRS-UMA-92-004-L): 9-11.

Belskii, D., "Liberation or Aggression," *Sovetskaya Rossiya*, February 28, 1991 (in FBIS-SOV-040): 10-11.

Belyayev, Igor, "The Persian Gulf: War Begins on October 15," *Literaturnaia gazeta*, No. 41, October 10, 1991 (in FBIS-SOV-91-200), 10-14.

Biryuzov, S., "Chief of the General Staff's Center for Operational and Strategic Studies: The Lessons of the Beginning Period of the Great Patriotic War", *Soviet Military Review*, No. 8, (1964).

Bogdanov, S., "The General Staff is Closely Monitoring the Developing Situation," *Krasnaya zvezda*, January 31, 1991 (in FBIS-SOV-91-022): 6.

Burmistenko, A., "Blitzkrieg in the Gulf: Two Viewpoints," *Trud*, April 2, 1991 (in JPRS-UMA-91-015): 65-66.

Chernavin, V. N. (Adm.), "Bitter Lessons of a Harsh War," *Sovetskaya Rossiya*, June 21, 1991 (in FBIS-SOV-91-119): 46-47.

Chigak, V. P. (Col.), "Roundtable Discussion," *Voyennaya mysl*, May 28, 1991 (in JPRS-UMT-92-002-L): 35-41.

_____, "The First Lessons of the Gulf War," *Voennaya Mysl*, May 1991 (in JPRS-UMT-92-002-L): 39.

Danilovich, A. (Col. Gen.), "On New Military Doctrines of the CIS and Russia," *Journal of Soviet Military Studies* (December 1992): 517-566.

_____, "On Strategic Non-Nuclear Deterrent Forces," *Voennaya Mysl*, January 1992 (in JPRS-UMT-006-L): 46-54.

Dokuchaev, Anatoliy., "View from the General Staff — Military Lesson of Gulf War Analyzed," *Krasnaya Zvezda*, March 17, 1991 (in FBIS-SOV-91-098): 65-67.

_____, "Security Concept, Potential Threats Viewed," *Krasnaya Zvezda*, July 23, 1993 (in FBIS-SOV-93-139): 33-36.

Doronin, Sergey, "Interview with Major General A. Bannikov, former chief of Soviet military specialists in Iraq: The General Was the Last One," *Rabochaya Tribuna*, January 26, 1991 (in FBIS-SOV-91-022): 8.

Dubrov, V., "MNF Direct Air Support in Desert Storm Operation Reviewed," *Aviatsia i Kosmonavtika*, November 1991 (in JPRS-UAC-92-006): 20-21.

Dunai, Peter, "Interview with Viktor Kremenyuk, Deputy Director of the U.S. and Canada Institute in Moscow: Someone has to Mediate," *Napszabadsag*, January 28, 1991 (in FBIS-SOV-91-022): 8-9.

Editorial Special Edition, "Basic Provisions of the Military Doctrine of the Russian Federation: Russia's Military Doctrine," *Rossiyskiye Vesti*, November 18, 1992 (in FBIS-SOV-92-222-S).

Editorial Special Edition, "On the Military Doctrine of the USSR (Draft)," *Voennaya mysl'*, (May 1992): 3-9.

Egorov, A., "Roundtable: Military Reform and the Ground Troops," *Krasnaia zvezda*, April 18, 1991 (in FBIS-SOV-91-012): 27-30.

Fedoseyev, E., "This Was Day One...," *Krasnaia zvezda*, January 19, 1991 (in FBIS-SOV-91-014): 21.

Gareev, M. A., "On Military Doctrine and Military Reform in Russia," *Journal of Soviet Military Studies* (December 1992): 539-551.

Gerasimov, Gennadiy, "At the End of the Week: War in Pursuit," *Sovietskaya Kultura*, March 8, 1991 (in JPRS-UMA-91-013): 71-73.

_____, "First, the Scalpel," *Sovietskaya Kultura*, January 26, 1991 (in FBIS-SOV-91-020): 23-24.

_____, "Potential Gulf War Repercussions, Threats Viewed," *Sovietskaya Kultura*, March 8, 1991 (in FBIS-SOV-91-055): 14-15.

Gladkevich, Yuriy, "Armed Forces' Survival Seen Threatened," *Krasnaya Zvezda*, August 19, 1993 (in FBIS-SOV-93-160): 27-29.

Kass, Ilana, "View From Russia: Whither Russia?" *Comparative Strategy* (September - December 1993): 233-237.

Kass, Ilana and Fred Clark Boli, "The Soviet Military: Back to the Future?," *Journal of Soviet Military Studies* (September 1990): 390-407.

Kholodov, Dmitriy, "Airborne Troops Commander General Podkolzin Says Country to Have Rapid Deployment Forces," *Moskovskiy Komsomolets*, July 31, 1993 (in FBIS-SOV-93-146): 31-32.

Korolev, S., "In Too Much of a Hurry with the Bombing," *Rabochaya Tribuna*, January 29, 1991 (in FBIS-SOV-91-023): 17.

Korolkov, B. F. (Col. Gen. Avn.), "Purpose, Mission, and Makeup of the Air Force Under Present Conditions," *Voennaya Mysl*, July 1992 Special Edition (in JPRS-UMT-92-012-L): 68-70.

Kozlov, N. (Maj. Gen. Avn.), "Air Defense Versus Air-to-Ground Weapons in the Initial Period of the War," *Vestnik Protivovozdushnoy Oborony*, 1992 (in JPRS-UMA-92-028): 9-10.

Krysanov, V. V. (Col.), "Features of the Development of Forms of Military Operations," *Voennaya Mysl*, February 2, 1992 (in JPRS-UMT-92-007-L): 23-26.

Kudlay, V. (Lt. Gen.), and Colonel V. Litvinenko, "Point of View: Experience is not Dogma but the Basis for Creativity," *Krasnaya zvezda*, October 2, 1991 (in JPRS-91-028): 52-54.

Kulikov, V., "Defending Soviet Weaponry," *Krasnaya Zvezda*, March 4, 1991 (in FBIS-SOV-91-042): 43.

Kzheb, K (Capt. 1st Rank), "Naval Forces in the War Against Iraq: First Results," *Morskoy Sbornik*, February 1991 (in JPRS-UMA-91-015): 62-65.

Ladin, A. (Col.), "Air Defense Party Conference Views Gulf War," *Krasnaya Zvezda*, March 22, 1991 (in FBIS-SOV-91-060): 38-39.

_____, "Prepared Statements from the Podium, Honest Talk in the Lobby," *Krasnaya zvezda*, Mar 22, 1991 (in FBIS-SOV-060): 38.

Lebedev, Yu. (Gen.-Maj.), "Persian Gulf War: Lessons and Conclusions," *Voennaya Mysl*, December 1991 (in JPRS-UMT-92-005-L): 62-70.

Losev, I. (Maj. Gen.) and A. Yakovlevich (Lt. Col.), "Desert Storm Revisited: Lessons from the Persian Gulf War," *Vestnik Protivovozdushnoy Oborony*, July 7, 1992 (in JPRS-UMA-92-040): 57-59.

Lunev, S., "Under the Sign of Uncertainty — A Pentagon Brochure on the Soviet Armed Forces," *Krasnaya zvezda*, October 31, 1991 (in JPRS-UMA-91-028): 54.

Lushev, Pyotr (Gen.), "The Soviet Military Doctrine — Significance, Aims, and Realization," *NATO's Sixteen Nations* (December 1989): 26-28.

Malyshev, L., "Modern High Precision Weaponry Close to Weapons of Mass Destruction," *Aviatsia i Kosmonavtika*, March-April 1992 (in JPRS-UAC-92-10): 8-9.

Malyukov, I., "Interview," *Krasnaia zvezda*, March 14, 1991 (in FBIS-SOV-91-053): 51.

Medvedko, Sergei, "A Shield or a Lance?" *Literaturnaia gazeta*, No. 43, October 24, 199 (in FBIS-SOV-90-209): 10.

_____, "He Will Not Spare His Own People," *Literaturnaia gazeta*, No. 4, January 30, 1991 (in FBIS-SOV-91-023): 17.

_____, "Persian Gulf: Sub-world War?," *Krasnaya Zvezda*, January 29, 1991 (in FBIS-SOV-91-020): 23-24.

Mirskiy, Georgiy Professor, "Historian Views Possible Gulf War Implications," *Literaturnaya gazeta*, March 6, 1991 (in FBIS-SOV-91-049): 16-17.

Mironov, V. (Col. Gen.), "Gulf War Lessons: What are Western Experts Being Quiet About?" *Glasnost*, April 25, 1991 (in JPRS-UMA-91-017): 47.

Moiseyev, M., "From Defensive Doctrine Positions," *Krasnaya Zvezda*, February 10, 1989 (in FBIS-SOV-89-028): 77-81.

_____, "On Occasion of an Anniversary," *Krasnaya zvezda*, February 29, 1991 (in FBIS-SOV-91-041): 53.

_____, "Take My Privileges," *Sovetskiy Patriot*, January 1, 1991 (in FBIS-SOV-91-048): 65-66.

Moskovskiy, Oleg, "General Moiseyev Cautions on Force Cuts," *Krasnaya zvezda*, February 10, 1989 (in FBIS-SOV-89-028): 7781.

Nadzharov, Aleksandra, "Defense Minister Grachev Interviewed — Russian Army Problem," *Nezavisimaya Gazeta*, June 8, 1993 (in FBIS-SOV-93-109): 43-47.

Ogarkov, N., "Guarding Peaceful Labor," *Kommunist No. 10*, (Moscow: in JPRS 79074), 86-97.

_____, "The defense of Socialism: Experience of the History of Modernity," *Krasnaya zvezda*, (May 9, 1984): 26-27.

Pogorelyy, M., "Round Table on Foreign Threat, Persian Gulf," *Krasnaya Zvezda*, June 28, 1991 (in FBIS-SOV-91-130): 63-65.

_____, "Iraq's Defeat, From a Military Observer's Viewpoint: What the War Showed," *Krasnaya Zvezda*, March 8, 1991 (in FBIS-SOV-91-048): 33-35.

Ponomarev, M. (Col.), "Early Air War Viewed," *Krasnaya Zvezda*, January 25, 1991 (in FBIS-SOV-91-021): 10-11.

_____, "The Picture Begins to Clear," *Krasnaya zvezda*, January 25, 1991 (in FBIS-SOV-91-021): 12.

Popov, Sergey, "Grachev Speaks to Army Education Staff," *Krasnaya Zvezda*, July 16, 1993 (in FBIS-SOV-93-136): 29-31.

Povaliy, M., "Development of Soviet Military Strategy," *Soviet Military Review*, (February 1967): 60-82.

Radionov, I. N. (Col Gen.), "Approaches to Russian Military Doctrine," *Voennaya Mysl*, July 1992 Special Edition (in JPRS-UMT-92-012-L): 4-12.

Reznichenko, V., "Soviet Tactics on the Nuclear Battlefield," *Voennaya Mysl* (June 1965): 76-84.

_____, "The Role of Tactics in Modern War," *Soviet Military Review*, No. 3, (1981): 10-11.

Russian Federation Security Council, "The Basic Provisions of the Military Doctrine of the Russian Federation: Russia's Military Doctrine," *Rossiyskiye Vesti*, November 18, 1992 (in FBIS-SOV-92-222-S): 1-11.

Samorukov, B., "Combat Operations Involving Conventional Means of Destruction," *Soviet Military Review*, (August 1976): 26-35.

Sauerwein and Matthias Plügge, "New Soviet Military Doctrine — The Voroshilov Academy's Interpretation," *International Defense Review* (January 1990): 21.

Savelyev, V., "Maneuver in the Offensive Battle," *Soviet Military Review*, No. 2, (1976): 42-48

Shabanov, Vitaly, "USSR Deputy Defense Minister for Armaments: The Country's Defense — New Approaches," *Krasnaya Zvezda*, August 18, 1989 (in FBIS-SOV-89-160): 119-122.

_____, "The Principles of the Soviet Defensive Military Doctrine — An Interview," *Asian Defence Journal* (October 1990): 26-27.

Shevchenko, V. P. (Maj. Gen.), "Contemporary Soviet Military Doctrine," *Asian Defence Journal* (July 1991): 13-18.

_____, "Lt. Gen. Malyukov, Air Force Chief of Staff on Gulf Lessons," *Krasnaya Zvezda*, March 14, 1991 (in FBIS-SOV-91-053): 50-51.

_____, "Chief of the Soviet Air Force Colonel General Shaposhnikov Characterizes Allied Forces In the Sky Over Iraq," *Krasnaya Zvezda*, January 26, 1991 (in FBIS-SOV-91-020): 22.

_____, "Soviet Air Force Colonel General Shaposhnikov Assess Air War in Gulf," *Krasnaya Zvezda*, January 25, 1991 (in FBIS-SOV-91-021): 9.

Sidorov, A.(Capt.), "Interview of Lieutenant General of Aviation Maliukov: The Gulf War: Initial Conclusions — Air Power Predetermined the Outcome," *Krasnaya zvezda*, March 14, 1991 (in FBIS-SOV-91-053): 50-51.

_____, "Interview with Colonel General Shaposhnikov, Commander in Chief of the Air Force, In the Sky over Iraq," *Krasnaya zvezda*, January 26, 1991 (in FBIS-SOV-91-020): 22-23.

_____, "In The Skies Over Iraq: Interview with Colonel General Shaposhnikov, Commander in Chief of the Soviet Air Force," *Krasnaya zvezda*, January 25, 1991 (in FBIS-SOV-91-021): 9-10.

Sizov, G. and A. L. Skokov, "The Significance of Precision Weapons in Modern Warfare," *Voennaya Mysl*, December 1992 (in JPRS-UMT-93-003-L): 23.

Solov'yev, Vadim, "Defense Minister Grachev Reviews Elements of New Military Doctrine Highlights," *Nezavisimaya Gazeta*, May 7, 1993 (in FBIS-SOV-93-088): 38-39.

Stukalin, Aleksandr, "Armed Forces Viewed After One Year in Existence," *Kommersant-Daily*, May 8, 1993 (in FBIS-SOV-93-088): 36-38.

Vasiliev, G., "The Concluding Phase of Desert Storm," *Zarubezhnoye Voennouye Obozreniye*, April 1991 (in JPRS-UFM-92-001-L): 6.

Vorob'yev, I., "Lobov Criticizes NATO," *Krasnaya Zvezda*, May 5, 1989 (in FBIS-SOV-89-086): 3.

Vovnenko, V., "Air Defense Forces Chief Army General Tretyak Interviewed," *Krasnaya Zvezda*, April 14, 1991 (in FBIS-SOV-91-074): 65-66.

Newspaper Articles, Radio, and Television (foreign and U.S.)

Batenin, Gelyy, "How to Overcome the 1941 Syndrome," *New Times* (February 26, 1991): 12-14.

Bay, Yevg. and V. Skosyrev, "IZVESTIIA Examines Arab-Israeli Conflicts," *Izvestia*, March 21, 1991 (in FBIS-SOV-91-063): 15-19.

Belyakov, Vladimir, "Viewpoint: Persian Gulf — Where is the Way Out of the Impasse?" *Pravda*, September 5, 1990 (in FBIS-SOV-90-173): 24.

Biletov, Valeriy, "Officers View Military Defense Doctrine," *Pravda*, July 1, 1993 (in FBIS-SOV-93-126): 37-38.

Bovin, Aleksandr, "Political Observer's Opinion: Kuwait, The Crisis Continues," *Izvestiya*, September 5, 1990 (in FBIS-SOV-91-173): 22-24.

Buryga, Nikolay, "Chief of the General Staff Lobov on Gulf War Lessons," *Izvestiya*, September 21, 1991 (in FBIS-SOV-91-171): 70-71.

_____, "Defense Minister Army General Grachev Discusses Army Status, Readiness," *Izvestiya*, February 23, 1993 (FBIS-SOV-93-034): 25-27.

_____, "Interview with General V. Gorbachev...Tanks Will Not Save the Day," *Izvestiya*, January 21, 1991 (in FBIS-SOV-91-014): 18-19.

_____, "Military Experts Examine and Assess War in Gulf," *Izvestiya*, January 21, 1991 (FBIS-SOV-91-014): 18-19.

_____, "Spring Draft Campaign Passed Off Successfully But Its Results Were Lamentable" *Izvestiya*, July 16, 1993 (in FBIS-SOV-93-136): 31-32.

Chernyak, Aleksandra, "Former Secretary of the Russian Federation Security Council Yuriy Skokov Interviewed on National Security Reforms," *Pravda*, July 22, 1993 (in FBIS-SOV-93-140): 28-33.

Chernyshev, Vladimir, "Tass Military Expert Views Military Maneuvers," *Tass*, January 17, 1991 (in FBIS-SOV-91-013): 8.

Glukhov, Yuriy, "Glukhov Views Lessons of Gulf War," *Pravda*, March 8, 1991 (in FBIS-SOV-91-047): 15-18.

Hiatt, Fred, "Yeltsin Promises Assertive Russia," *The Washington Post*, February 25, 1994: 1.

Isachenkov, Vladimir, "Officers Discuss War Lessons," *Tass*, March 1, 1991 (in FBIS-SOV-91-042): 40-44.

Izvestiya, "Kuwait: The Crisis Continues," *Izvestiya*, September 5, 1990 (in FBIS-SOV-90-173): 16-20.

Kaplan, Frederick, "Readiness of Soviet Forces Also Questioned," *Boston Globe*, August 27, 1984.

Kobysh, V., "A Slick in the Ocean of Madness," *Izvestiya*, February 2, 1991 (in FBIS-SOV-91-023): 19-21.

Kondrashov, Stanislav, "Political Observer's Notes: You Cannot Stand Tall Without Dignity," *Izvestiya*, January 28, 1991 (in FBIS-SOV-91-021): 14-16.

Kostin, N., "Comments on the Gulf War," *Izvestiya*, February 8, 1991 (in FBIS-SOV-91-028): 20.

Kozlov, S., "Interview with Colonel General Maltsev," *Radio Moscow*, February 6, 1991 (in FBIS-SOV-91-025): 31.

Krasnova, Tatyana and Sergy Torchinskiy, "Interview with Defense Minister Grachev: Without Retouching," *Moscow Television*, February 22, 1993 (in FBIS-SOV-93-034): 27-28.

Kutsenko, N., "Lessons of Combat Operations," *Izvestiya*, February 28, 1991 (in FBIS-SOV-91-042): 41.

Lashch, Mikhail, "Interview with Marshal Shaposhnikov: Whatever Threat Exists for Russia Comes Only From Itself," *Kommersant - Daily*, July 17, 1993 (in FBIS-SOV-93-136): 28.

Litovkin, V., "Interview with Major General G. Zhivitsa, Center for Operational and Strategic Studies: Allied Success Evaluated," *Izvestiya*, January 19, 1991 (in FBIS-SOV-91-014): 20.

_____, "Interview with Major General N. Kutsenko, first Deputy Chief of the USSR Armed Forces General Staff Operational Strategic Studies Center," *Izvestiya*, February 28, 1991 (in FBIS-SOV-91-042): 41-42.

_____, "New Priorities for Ground Forces Air Defense," *Izvestiya*, October 23, 1992 (in JPRS-UMA-92-040): 16-17.

Lobov, V., "Radio Address," *Radio Moscow*, February 1, 1991 (in FBIS-SOV-91-022): 11.

Malyukov, I., "Comrades in Arms," *Wall Street Journal*, April 12, 1991.

_____, "Soviet Review," *U.S.A. Today*, March 1, 1991, 3A.

Mann, Edward C., "Operation Desert Storm? It Wasn't Air-Land Battle," *Air Force Times* (September 30, 1991).

Moiseyev, M., "Moiseyev Speech," *Moscow Television Service*, February 23, 1989 (in FBIS-SOV-89-037): 83-122.

Moskovskiy, Oleg, "Interview with Major General V. Zhurbenko, Chief of the Main Department, USSR Armed Forces General Staff," *Tass*, February 26, 1991 (in FBIS-SOV-91-038): 11.

_____, "Moiseyev on Results of Gulf War," *Tass*, June 6, 1991 (in FBIS-SOV-91-110): 51-52.

_____, "No Confirmation of Iraqi Withdrawal," *Tass*, February 26, 1991 (in FBIS-SOV-91-038): 11.

Nadein, V., "Our Colonel Said: 'I Do Not Believe It!'" *Izvestiya*, March 8, 1991 (in FBIS-SOV-91-047): 15-18.

Peskov, Igor and Leonid Timofeyev, "Soviet Foreign Minister Bessmertnykh Holds 28 February News Conference on Gulf," *Tass*, February 28, 1991 (in FBIS-SOV-91-041): 10-13.

Shumilin, A., "To Arms? Three Possible Scenarios to the Start of Combat Operations Against Iraq," *Komsomolskaya pravda*, October 10, 1990 (in FBIS-SOV-90-197): 20.

Solovev, Vadim, "Radio Interview," *Radio Moscow*, January 18, 1991 (in FBIS-SOV-91-031): 6-7.

Starushenko, G. B., "Will War be Declared? The Persian Gulf Conflict From the Viewpoint of International Law," *Izvestiya*, January 15, 1991 (in FBIS-SOV-91-010): 14-15.

Stukalin, A., "The Future of Military Reform Depends on the Economic Situation," *Kommersant - Daily*, May 8, 1993 (in FBIS-SOV-088): 36-37.

Vasiliyev, G., "Smarter Than Two Generals," *Pravda*, April 11, 1991 (in FBIS-SOV-91-072): 12-13.

Velikiy, D. and B. Ivanov, "In the Glow of Missile Attacks," *Izvestiya*, January 30, 1991 (in FBIS-SOV-91-021): 16.

Yazov, Dmitriy, "Interview with General Yazov," *Danas*, November 15, 1989, pp. 54-58 (in JPRS-UMA-89-002-L, January 19, 1989): 8-12.

Yegorov, Vladimir, "Various Reactions to War in Gulf Reports," *Tass*, January 17, 1991 (in FBIS-SOV-91-013): 8.

Yusin, M., "Soviet Response to the Results of the Geneva Talks," *Izvestiya*, January 11, 1991 (in FBIS-SOV-91-010): 11.

Zarayelyan, A., "Commentator Views Russian Army Anniversary," *Moscow Ostankino Television First Channel*, May 7, 1993 (in FBIS-SOV-93-088): 37.

Zhivitsa, G., "How Professionals Wage War," *Izvestiia*, January 19, 1991 (in FBIS-SOV-014): 20.

Letters, Memoranda, and Speeches

Kipp, Jacob, Foreign Military Studies Office, Ft. Leavenworth, KS., memo to Chris Donnelly, subject: Russian Military Doctrine Texts, February 24, 1994.

Manthorpe, William H.J. Jr., Office of the Chief of Naval Operations, letter, subject: Background for Understanding Soviet Strategy, February 6, 1986.

Secretary of Defense, Office of the Secretary of Defense, letter, subject: Warsaw Pact Sustaiability, April 10, 1986.

Slipchenko, V., "Impending Changes from the Reform Plan for Employing the Soviet Armed Forces," Manuscript in English of presentation at the National Defense University, (Washington, DC, March 15 and 20, 1991).

_____, "Major General Slipchenko of the Soviet General Staff Academy Answers Questions During a Working Session Before the Start of the NDU Conference," unpublished report on SASONET, Ft. Leavenworth, KS: March 28, 1991.

_____, "Soviet Officers' Visit to Army War College," unpublished SASONET report from the Foreign Military Studies Office, (Ft. Leavenworth, KS: March 25, 1991).

Interviews

Fitzgerald, Mary, Hudson Institute, Washington, DC., interview with author, March 24, 1994.

Kipp, Jacob, Foreign Military Studies Office, Ft. Leavenworth, KS., interview with author, March 21, 1994.

Turbiville, Graham H. Jr., Foreign Military Studies Office, Ft. Leavenworth, KS., interview with author, March 21, 1994.

Research Papers, Reports, and Studies

Donnelly, Christopher N., "Echeloning," (Research Paper, Soviet Studies Research Center, Sandhurst, UK, December 1984).

Secondary Sources

Books

Baum, L. Frank, *The Wizard of Oz*, (Chicago, IL: Rand McNally and Co.), 1956.

Brodie, Bernard, *Strategy in the Missile Age*, (Princeton, NJ: Princeton University Press), 1991.

Boyd, Alexander, *The Soviet Air Force since 1918*, (New York, NY: Stein and Day), 1977.

Clausewitz, Carl Von, *On War*, edited and translated by Michael Howard and Peter Paret, (Princeton, NJ: Princeton University Press), 1984.

Colins, John M., *American and Soviet Military Trends Since the Cuban Missile Crisis*, (Washington: DC: Center for Strategic and International Studies of Georgetown University), 1975.

Erickson, John, *The Military-Technical Revolution: Its Impact on Strategy and Foreign Policy*, (New York, NY: Praeger Publishing), 1966.

Erickson, John, Lynn Hansen, and William Schneider, *Soviet Ground Forces: An Operational Assessment*, (Boulder, Co.: Westview Press), 1986.

Ermath, Fritz, "Contrasts in American and Soviet Strategic Thought," in *Soviet Military Thinking*, ed. Derek Leebaert, (London: Allen and Unwin), 1981.

Garthoff, Raymond L., *Soviet Military Doctrine*, (Glencoe, IL: The Free Press), 1953.

Hansen, James H., *Correlation of Forces: Four Decades of Soviet Military Development*, (New York, NY.: Praeger Press), 1987.

Hardesty, Von, *Red Phoenix: The Rise of Soviet Air Power 1941 - 1945*, (Washington, DC: Smithsonian Institution Press), 1982.

Hines, John G., and Donald Mahoney, *Defense and Counteroffensive Under the New Soviet Military Doctrine*, (Santa Monica, CA: RAND Corp.), 1991).

Holloway, David, *The Soviet Union and the Arms Race*, (New Haven, CT: Yale University Press), 1983).

Isby, David C., *Weapons and Tactics of the Soviet Army*, (London, UK.: Jane's Publishing Co.), 1981.

Lambeth, Benjamin, *Desert Storm and Its Meaning: The Viewpoint from Moscow*, (Santa Monica, CA: RAND Corp.), 1992.

_____, *How to Think About Soviet Military Doctrine*, (Santa Monica, CA: RAND Corp.), 1978.

_____, "The Sources of Soviet Military Doctrine," in *Comparative Defense Policy*, ed. by Frank Horton, Anthony Rogerson, and Edward Warner, (Baltimore, MD: John Hopkins University Press), 1974.

Lee, Asher, *The Soviet Air Force*, (London, UK: Gerald Dickworth and Co. Ltd.), 1952.

Mason, R. A. and John W. R. Taylor, *Aircraft, Strategy and Operations of the Soviet Air Force*, (Somerset, UK: Jane's Publishing Co.), 1986.

Miller, Russell, *The Soviet Air Force at War*, (Alexandria, VA: Time-Life Books), 1983.

Murphy, Paul J., ed., *The Soviet Air Forces*, (Jefferson, NC: McFarland and Company, Inc.), 1984.

Soviet Studies Research Centre, *The Sustainability of the Soviet Army in Battle*, (Sandhurst, UK: Royal Military Academy), 1986.

Thatcher, Margaret, *Margaret Thatcher: The Downing Street Years*, (New York, NY: Harper Collins), 1993.

Ward, Richard D., *Soviet Design for Readiness*, (Fort Worth, TX: General Dynamics Corp.), 1987.

Warner, Edward L. III., *The Defense Policy of the Soviet Union*, (Santa Monica, CA: RAND Corporation), August 1989.

Journals and Magazine Articles

Adelman, Jonathan R., "The Evolution of Soviet Military Doctrine: 1945-84," *Air University Review* (March - April 1985): 24-35.

Allison, Graham T., Jr., "Testing Gorbachev," *Foreign Affairs* (Fall 1988): 18-32.

Boll, Michael M., "By Blood, Not Ballots: German Unification, Communist Style," *Parameters*, Spring 1994: 66-77.

Burmistenko, A., "Blitzkrieg in the Gulf: Two Viewpoints," *Trud*, April 2, 1991 (in JPRS-UMA-91-015): 65-66.

Cade, David J., "Russian Military Strategy: A Fresh Look," *Air University Review* (September - October 1978): 18-27.

Collins, Brian, "Russia Fragments Its Airpower," *Air Force Magazine*, (February 1994): 62-65.

Cutshaw, Charles Q., "Soviet Military Restructuring — is it Really Defensive?," *Jane's Soviet Intelligence Review* (May 1990): 213-219.

Dick, Charles J., "Initial Thoughts on Russia's Draft Military Doctrine" *Journal of Soviet Military Studies* (December 1992): 552-566.

_____, "Russia's Draft Military Doctrine, 10 Months On," *Soviet Studies Research Centre*, (April 1993).

_____, "Russian Views on Future Wars," *Jane's Intelligence Review* (September 1993): 390-392.

_____, "Soviet Military Doctrine — Preparing for the Future," *Jane's Intelligence Review* (January 1992): 33-36.

Erickson, John, "The Soviets: More Isn't Always Better," *Military Logistics Forum* (September 1984): 58-64.

Fitzgerald, Mary C., "New Russian Military Thinking," *American Intelligence Journal* (Spring - Summer 1993): 55-64.

_____, "The Soviet Military and the New Air War in the Persian Gulf," *Airpower Journal* (Winter 1991): 64-78.

_____, "Russia's New Military Doctrine," *Defense and International Security* (October, 1992): 40-48.

_____, "Russia's New Military Doctrine," *Naval War College Review* (Spring 1993): 24-44.

_____, "Russia's New Military Doctrine," *Military Intelligence* (October - December 1992): 6-29.

_____, Russia's Vision of Air-Space War," *Air Force Magazine*, (December 1993): 76-78.

Garthoff, Raymond L., "New Thinking in Soviet Military Doctrine," *Washington Quarterly* (Summer 1988): 131-158.

Glantz, David M., "Soviet Military Art: Challenges and Change in the 1990s," *Journal of Soviet Military Studies* (December 1991): 547-593.

_____, "Nature of Soviet Operational Art," *Parameters* (Spring 1985): 2-12.

_____, "Soviet Offensive Ground Doctrine Since 1945," *Air University Review* (June - July 1983): 25-35.

Goldberg, Andrew C., "The Present Turbulence in Soviet Military Doctrine," *Washington Quarterly* (Summer 1988): 159-170.

Grau, Lester W. (Lt. Col.), "Continuity and Change: A Soviet General Staff View of Future Theater War," *Military Review* (December 1991,): 11-24.

Gross, Natalie, "Reflections on Russia's New Military Doctrine, *Jane's Intelligence Review* (August 1992): 339-341.

Guertner, Gary L., "Offensive Doctrine in a Defense-Dominant World," *Air University Review* (November - December 1985): 2-11.

Hall, Robert, "Where Next for the Soviet Division?," *Jane's Soviet Intelligence Review* (December 1990): 538-540.

Heuser, Beatrice, "Warsaw Pact Military Doctrines in the 1970s and 1980s: Findings in the East German Archives," *Comparative Strategy* (September – December 1993): 437–457.

Holcomb, James, "Russian Military Doctrine — Structuring for the Worst Case," *Jane's Intelligence Review* (December 1992): 64–68.

Hull, Andrew W., "The Massing of Forces and Means — A Key Soviet Operational Concept," *Jane's Soviet Intelligence Review* (March 1991): 104–109.

Katz, Mark N., "The Legacy of Empire in International Relations," *Comparative Strategy* (September – December 1993): 365–383.

Kaufmann, William W., "Glasnost, Perestroika, and U.S. Defense Spending," *The Brookings Institute Journal* (November 1989): 15–67.

Keltner, Kenneth M. and Graham H. Turbiville Jr., "Soviet Reinforcement in Europe," *Military Review* (April 1987): 34–43.

Kime, Steven F., "War and Politics in the USSR," *Strategic Review* (Fall 1987): 44–45.

Kipp, Jacob W., "Where Then Is the Threat? — Soviet Military Doctrine in the Post-Cold War Era," *Military Review* (December 1990): 2–15.

Kovner, Milton, "Russia in Search of a Foreign Policy," *Comparative Strategy* (September – December 1993): 307–320.

Lambakis, Steven, "Churchill Versus Gorbachev: The Bout of the Century," *Comparative Strategy* (September – December 1993): 225–232.

Lee, Kent D., "Strategy and History: The Soviet Approach to Military History and Its Implications for Military Strategy," *Journal of Soviet Military Studies* (Fall 1987): 409–445.

McGuire, Michael, "About Face: How the Soviets stopped Planning for World War," *Technology Review* (November – December 1989): 20–24.

_____, "Soviet Military Objectives," *World Policy Journal* (Fall 1987): 84–98.

_____, "Soviet Military Doctrine: Contingency Planning and the Reality of the World War," *Survival*, (May–June 1980), 104–118.

Miller, Robert F., "Echoes of *Perestroika*," *Pacific Defense Reporter* (December 1989 - January 1990): 7–9.

Peterson, Philip A. and John R. Clark, "Soviet Air and Anti-air Operations," *Air University Review* (March–April 1985): 36–54.

Quatras, Jean, "New Soviet Thinking Is Not Good News," *Washington Quarterly* (Summer 1988): 171–183.

Record, Jeffrey, "Defeating Desert Storm (And Why Saddam Didn't)," *Comparative Strategy* (September – December 1993): 125–140.

Richter, Brigitta, "Interview with General V. Lobov, Warsaw Pact Chief of Staff: The War has Become a Means of Destroying Iraq," *Der Morgen*, February 18, 1991 (in FBIS-SOV-91-036): 81–82.

Rogers, Kenneth A., "New Perspectives on Soviet Thinking: Implications of the Systems Approach," *Air University Review* (July - August 1985): 55–65.

Sauerwein and Matthias Plügge, "New Soviet Military Doctrine — The Voroshilov Academy's Interpretation," *International Defense Review* (January 1990): 21.

Schneider, William, Jr., "Soviet General-Purpose Forces," *Orbis*, (Spring 1977): 47–49.

Sherr, James, "Soviet Military Doctrine: Its Role and Future," *Defense and Diplomacy* (January 1990): 36–37.

Starr, Barbara, "Satellites Paved the Way to Victory," *Jane's Defence Weekly* (March 9, 1991): 329–333.

Stoecker, Sally W., "The Historical Roots of the Current Debates on Soviet Military Doctrine and Defense," *Journal of Soviet Military Studies* (September 1990): 363–389.

Thomas, Timothy L., "The Soviet Military on 'Desert Storm': Redefining Doctrine?," *Journal of Soviet Military Studies* (December 1991): 594–620.

Research Papers, Reports, and Studies

Admiral, Mark A., "The Evolution of Russian Offensive Air Warfare Theory: From Deep Battle to Aerospace War," (Thesis, The Naval Postgraduate School, June 1993).

Berman, Robert P., "Soviet Air Power in Transition," (Research Paper, The Brookings Institution, 1978).

Collins, Brian J., "Airpower in the Persian Gulf: Soviet Analysis," (unpublished research paper, CAEE Defense Studies, Supreme Headquarters Allied Powers Europe, February 12, 1992).

Dick, C. J., "Initial Thoughts on Russia's Draft Military Doctrine," (Research Paper, Soviet Studies Research Centre, RMA Sandhurst, UK, July 14, 1992).

_____, "Russia's Draft Military Doctrine, 10 Months On," (Research Paper, Soviet Studies Research Centre, RMA Sandhurst, UK, April 1993).

Donnelly, Christopher N., "The Warsaw Pact View of the Future Battlefield," (Research Paper, Soviet Studies Research Center, Sandhurst, UK, undated).

Felker, Edward J., "Does the Air Force Practice Its Doctrine? A Limited and Focused Air Campaign Concept," (Master of Military Arts and Science Thesis, U. S. Army Command and General Staff College, 1991).

Glantz, David M., "Deep Attack: The Soviet Conduct of Operational Maneuver," (Research Paper, Soviet Army Studies Office, U.S. Army Command and General Staff College, 1987).

_____, "Force Structure: Meeting Contemporary Requirements," (Research Paper, Combined Arms Center, U.S. Army Command and General Staff College, 1988).

_____, "The Nature of Soviet Operational Art," (Research Paper, Soviet Army Studies Office, U.S. Army Command and General Staff College, 1985).

_____, "Soviet Operational Formation for Battle," (Research Paper, Soviet Army Studies Office, U.S. Army Command and General Staff College, 1983).

_____, "Soviet Operational Maneuver in a Period of Reform," (Research Paper, Soviet Army Studies Office, U.S. Army Command and General Staff College, 1989).

Grau, Lester W., "Changing Soviet Objective Depths: A Reflection of Changing Combat Circumstances," (Research Paper, Soviet Army Studies Office, Ft. Leavenworth, KS., March 1989).

_____, "Countering Air Assaults: A Russian Dynamic of Future War," (Research Paper, Foreign Military Studies Office, Ft. Leavenworth, KS., June 1992).

_____, "Desert Storm Ground Operations: A General Staff Assessment," (Research Paper, Foreign Military Studies Office, Ft. Leavenworth, KS., March 1992).

_____, "Review of Soviet Ground Forces for 1988," (Research Paper, Foreign Military Studies Office, Ft. Leavenworth, KS., undated.).

_____, "Special Operations in the Gulf War: A View from the Soviet Military Establishment," (Research Paper, Foreign Military Studies Office, Ft. Leavenworth, KS., July 1992).

Kipp, Jacob W., "The Gulf War, High Technology, and Troop Control: The Nexus Between the Military-Political and Military-Technical Aspects of Future War," (Research Paper, Foreign Military Studies Office, Ft. Leavenworth, KS., April 1992).

Kipp, J. W., and others, "Historical Analysis of the Use of Mobile Forces by Russia and the USSR," (Research Paper, Texas A&M University Center for Strategic Studies, October 1985).

_____, "Mass Mobility and the Red Army's Road to Operational Art: 1918-1936," (Research Paper, Combined Arms Center, U.S. Army Command and General Staff College, 1987).

Lambeth, Benjamin S., "Red Phoenix Redux: The Fitful Emergence of a New Russian Air Force," (RAND Draft, RAND Corporation, Santa Monica, CA., March 1994).

Thomas, Timothy L., "The Soviet Military on 'Desert Storm': A Preliminary Report," (Research Paper, Foreign Military Studies Office, Ft. Leavenworth, KS., August 1991).

Villahermosa, Gilberto, "Desert Storm: The Soviet View," (Research Paper, Foreign Military Studies Office, Ft. Leavenworth, KS., 1992).